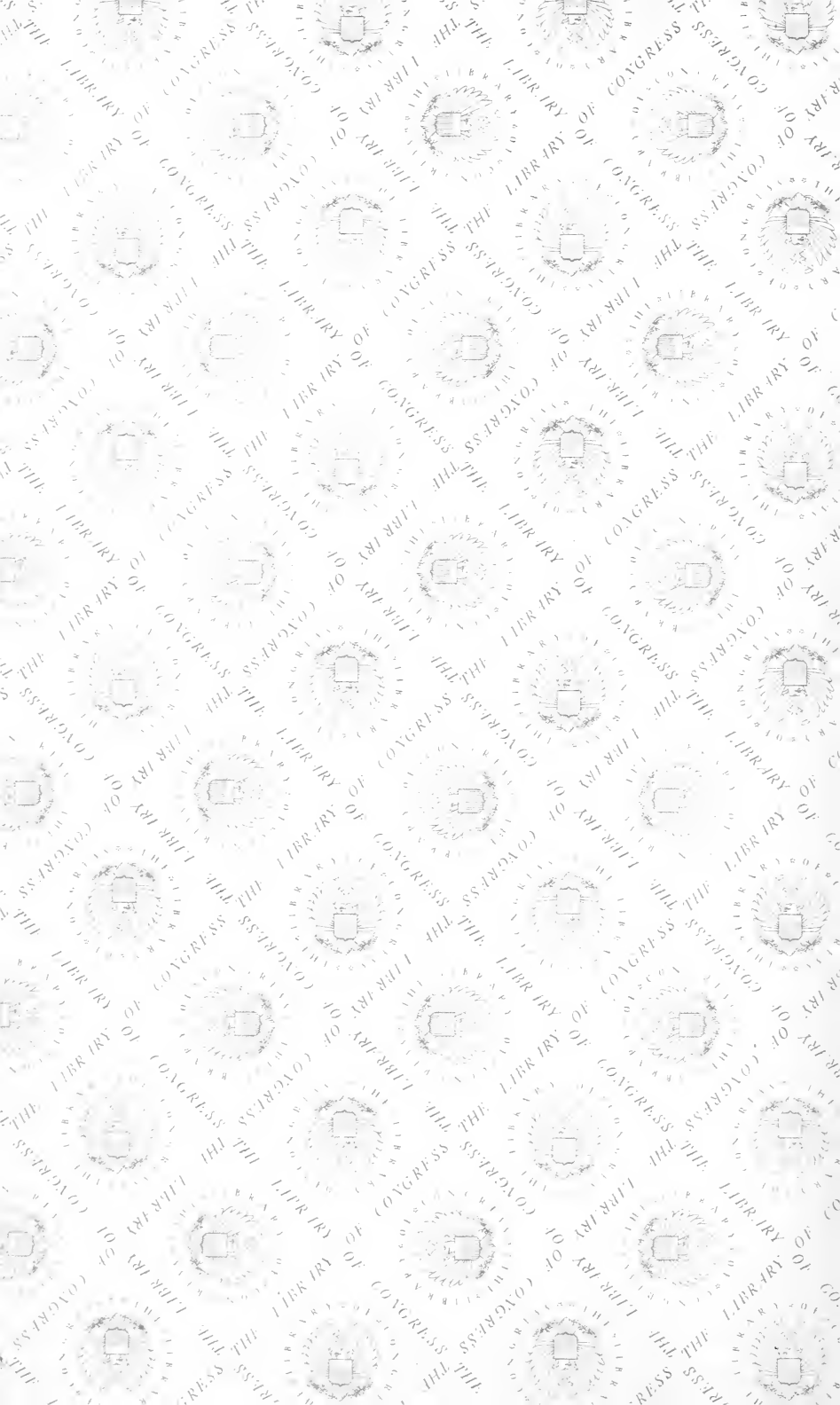


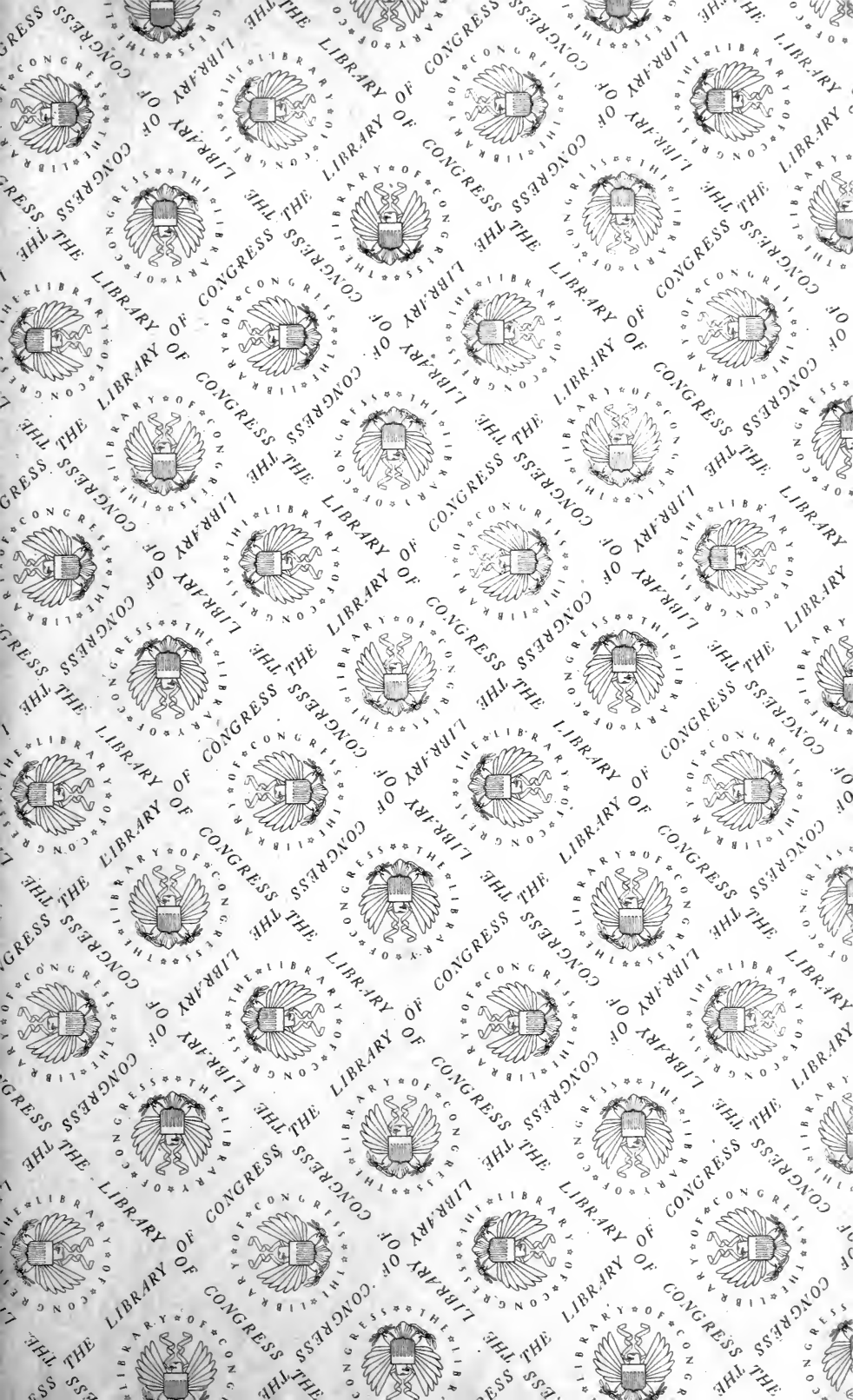
U 167

.U6

1915a

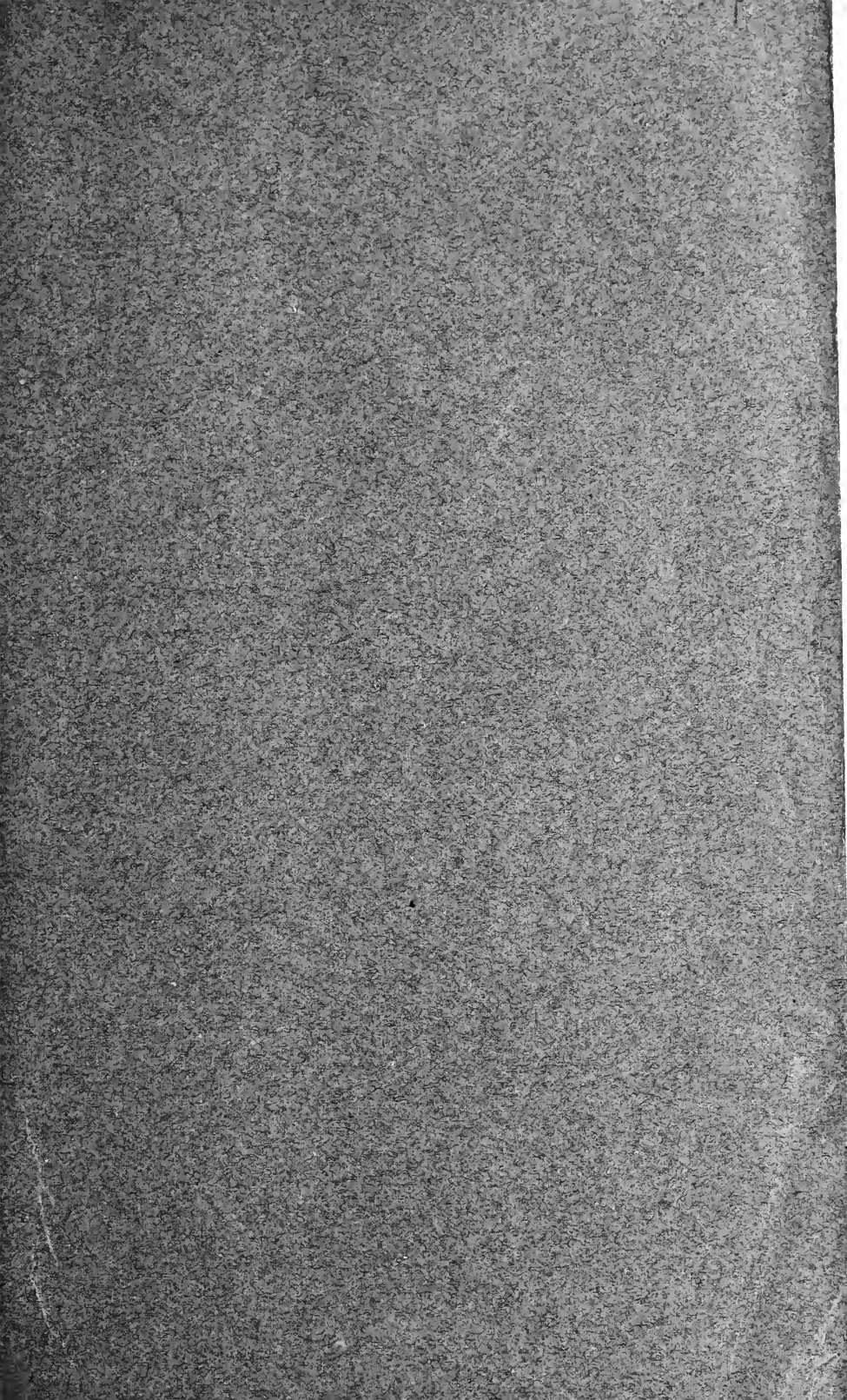
Copy 1



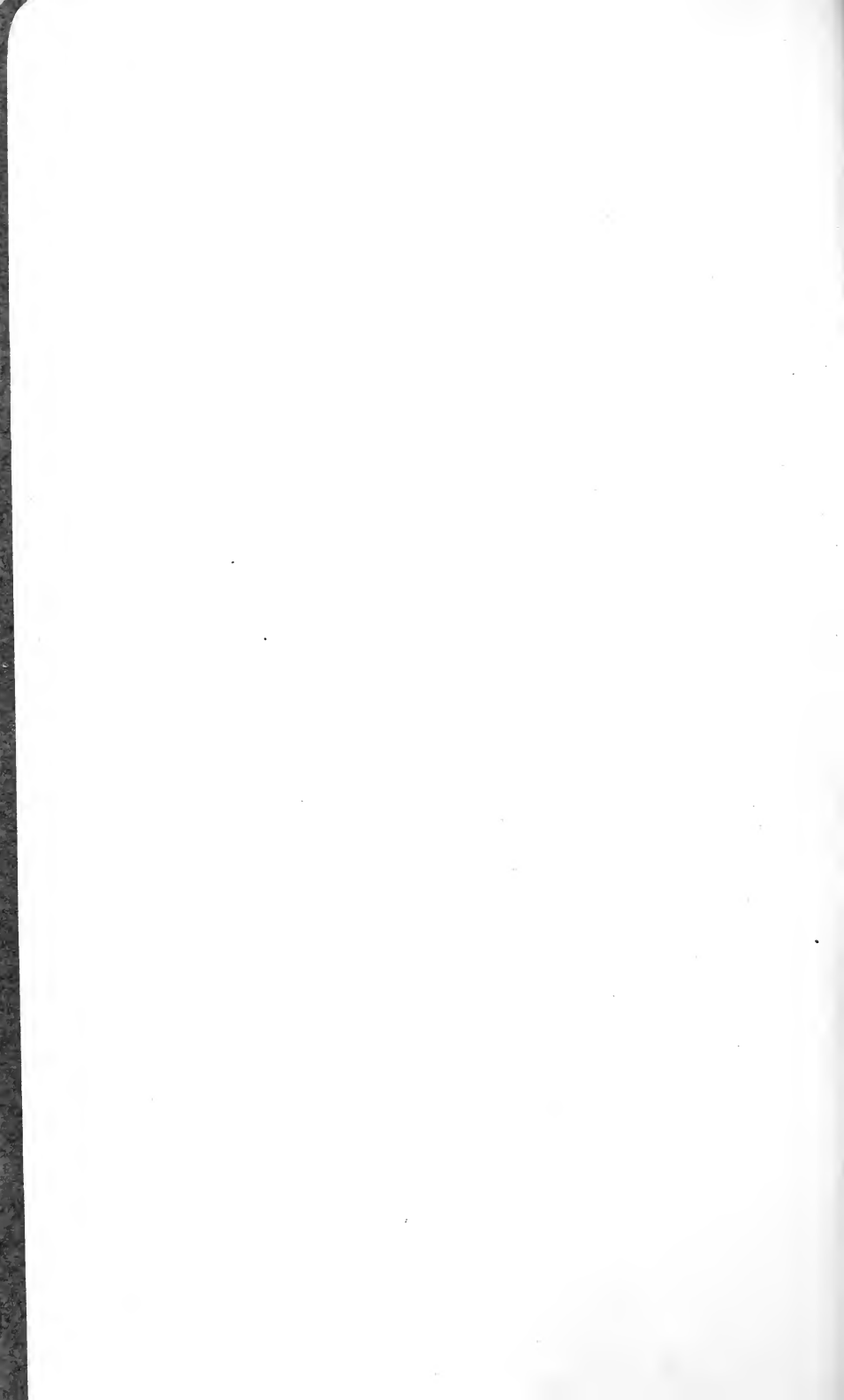




STUDIES IN
MINOR TACTICS
1915



STUDIES IN MINOR TACTICS
1915



U. S. Army Service Schools, Fort
Leavenworth, Dept. of Military Art

STUDIES IN MINOR TACTICS 1915

Prepared by
DEPARTMENT OF MILITARY ART
The Army Service Schools



PRESS OF
THE ARMY SERVICE SCHOOLS
FORT LEAVENWORTH

1915

167
116-501
12-501

486555

AUG -6 1942

THE LIBRARY OF
CONGRESS
SERIAL RECORD

MAR 13 1943

Copy _____

LC Control Number



tmp96 028889

Preface

THERE having been an insistent demand for STUDIES IN MINOR TACTICS, and the edition of 1908 being out of print, it was decided that the Department of Military Art should prepare a new book on the subject along somewhat different lines.

With this purpose in view, Captain E. D. Scott, Field Artillery, Captain Le Roy Eltinge, Cavalry, and Captain H. B. Fiske, Infantry, were designated to prepare these studies, each in his own arm. This they have ably done, and the results of their labor appear in the following pages.

It has been the aim to teach the principles of minor tactics by applying them in a practical way to the handling of small units, varying in size from a patrol to a regiment.

This has been done by a series of troop leading problems in which the various phases of field operations are set forth and commented upon, orders being given for all the units involved down to the smallest patrol.

It is believed this book will prove of great value to those officers seeking information as to the practical handling of small units in field operations, and of marked assistance to those preparing themselves for admission to The Army Service Schools.

The authors desire to make grateful acknowledgment to Lieutenant Aristides Moreno, Infantry, for his valuable assistance in correcting and proof-reading the manuscript. Those portions of the studies referring to the sanitary dispositions are the work of Major Wm. N. Bispham, Medical Corps, to whom grateful acknowledgment is made.

W. A. HOLBROOK,
Lieutenant Colonel, Cavalry,
Senior Instructor,
Department of Military Art.

The Army Service Schools,
Fort Leavenworth, Kansas.
November 30, 1915.

Introduction

IN using this text, nothing will be gained by casual or hurried reading. If any benefit is to be derived therefrom, it can only be as the result of careful and painstaking study of every detail.

The reasons submitted for each action should be weighed in comparison with others that may appeal to the student. If the latter can not agree with the action taken, he should come to a definite conclusion as to a better procedure. In no case should the student uncritically accept the conclusions of the text.

If he does not like an order as written, he should actually draft the one he prefers. By such criticism of the text, he will work himself thoroughly into the spirit of the situation, and, by the tactical thought required, gain the instruction which the authors hope to furnish simply by suggestion.

When studying the text, the student should break off whenever a decision or order is called for, and himself write out that decision, or that order, before reading further in the text. He should then compare his work with the text and decide whether or not he is wrong, remembering that no two men will solve the same problem in exactly the same way and that he may be right and still differ materially from another who is also right.

The map furnished with the text is a photographic reduction of the 3-inch map of the same ground. Those who find the map trying on the eyes, would do well to purchase the larger map, which may be obtained from the Book Department, The Army Service Schools for \$1.00, mounted on muslin.

In these pages the attempt has been made, in each of the twelve parts, to carry a small unit of one of the three arms through a number of continuous situations covering a more or less extended period. By varying incidents presented to the commanders concerned, the several primary forms of tactical procedure required of, and proper for, small detached units are illustrated and discussed and the manner indicated in which, in service, the commander's problems must shade into each other, and his solutions be connected into the complete leading of his troops.

For example: Part I deals with an infantry regiment which detains, advances, reconnoiters, and attacks an enemy in position, pursues, halts for the night, establishes outposts, prepares and occupies a defensive position, withdraws therefrom and retreats. The whole covers a period of three consecutive days. The troop leading of the regiment and all of its parts, from its reconnoitering, combat and security patrols, through its company and battalion to regimental headquarters, is illustrated by quoting the orders issued, ex-

cept where to do so would be a mere repetition of those given elsewhere.

When an important decision is required, involving a radical change in tactical procedure, as from the offensive to the defensive, the commander's complete estimate of the situation appears. When the new action is more in conformity with previously-determined policy, brief reasons only for the action are stated. When the reasons are obvious, the orders issued are permitted to speak for themselves. Finally, where the manner in which a decision is carried into effect, for instance, the conduct of the attack, does not sufficiently explain its technique, that phase concludes with detailed explanatory comment. To make the study complete in a particular frequently neglected, the manner of handling the regiment's sanitary personnel, including its bandsmen, is described in detail and discussed.

In Part II a detached battalion in charge of a convoy is considered. Opportunity is there found for discussion of the details of outpostting such an unwieldy body; of police arrangements necessary therewith; of those for security while on the march; and of a battalion's position for the convoy's defense. As an incident to this study, the conduct of a distant reconnoitering patrol is described at some length.

Part III jumps to the other side of the situation set forth in Part II, and deals with a battalion whose mission is the attack of this convoy. In this part, also, a reconnoitering patrol is followed during some hours. The part culminates with the battalion's reconnaissance and attack of an enemy in position.

Following the general plan of Parts I to III, which deal with infantry, Parts IV to VIII, which deal with cavalry, take up, in succession, a distant reconnoitering patrol; a squadron covering infantry to which it is attached, both on the march and in battle; a squadron acting alone; and a regiment acting as divisional cavalry.

It is important that officers not belonging to the artillery, but who may have organizations of that arm in their commands, shall have a clear understanding of what artillery can accomplish, in order that they may not assign tasks to it which are beyond reasonable expectation of accomplishment, and on the other hand not neglect to take advantage of the valuable assistance which in nearly all cases artillery can render.

This requirement necessitates first, a knowledge of the effects of artillery fire, and approximately the time and amount of ammunition needed to obtain desired results; secondly the kind of positions needed by the artillery to best fulfill its functions. It is of course entirely unnecessary for officers not belonging to the artillery to have technical knowledge as to the manner in which the guns are actually handled, but they should thoroughly understand the tactics of the artillery, and what it can and can not do, and be prepared to issue orders for its joint action with other arms and assume full responsibility for such orders.

Artillery has no independent role on the battlefield. Minor tactics, as the term is applied to the operations of troops who are able to maintain such a role, is scarcely the correct designation for the

minor operations of the artillery. In general, the tactics of artillery means those operations necessary to get the artillery into such position that it can by fire action assist in the carrying out of a tactical idea in coöperation with other troops.

With this feature of artillery tactics all officers of other arms are concerned. Without intelligent understanding of it, they are not able to appreciate the possibilities of the arm or its limitations, to evaluate the reports and recommendations of the artillery commander; and to make proper decisions thereon.

The fire tactics of artillery calls for a technical training that officers of other arms have no opportunity to receive, and it will be well to leave it to the artillery, merely indicating what is desired.

In the parts of this book devoted to artillery, the attempt has been made to illustrate some of the various activities of that arm with which officers of other arms should be familiar. Fire tactics has not been considered except in so far as it may affect the distribution and location of fire units.

Parts VIII and IX are battery problems; Parts X, XI and XII are battalion problems. All have been used in The School of the Line, and three are followed by comments suggested by students' solutions.

To facilitate an understanding of the text, simple sketches on which the troops are placed at important periods have been interspersed through the pages; orders, messages and reports are set off from the context and placed in small type; and important hours are carried into the margin for ready reference.

The orders, quoted throughout the text, are not presented as those best fitting the circumstances; nor should they, by any means, be considered or used as models. They are simply submitted as ones which would probably initiate in a competent manner the action decided upon.

Table of Contents

Part I—An Infantry Regiment

SITUATION	1
AN ADVANCE.....	1
Battalion covering detraining	1
Battalion orders for a march	2
A company as advance guard	3
A position in readiness	4
Incidents and actions to 1:00 p. m.	5
Regimental commander's estimate of the situation	7
His orders for a march forward.....	9
Dispositions of the field train.....	9
A battalion as advance guard.....	10
A company as advance party.....	11
A flank patrol	12
A company as flank guard	13
A platoon as advance guard of a company	13
A march outpost	14
AN ATTACK	16
Preliminary reconnaissance by advance guard	16
Reconnoitering patrols	17
Regimental commander's estimate of the situation	20
His attack orders and arrangements	22
Actions and orders, 1st Battalion.....	23
Actions and orders, Company A.....	24
Actions and orders, 2d Battalion.....	27
Actions and orders, Company E.....	27
Progress of the attack—4:45 to 5:15 p. m.	28
Actions and orders, 3d Battalion, and progress engagement to its conclusion	29
The pursuit	31
Comment	33
Sanitary arrangements	38
HALT FOR THE NIGHT.....	42
Arrangements and orders, regimental headquarters.....	42
Outpost arrangements and orders	44
Comment	46
A DEFENSE	48
Situation	48
Regimental commander's estimate of the situation	48
Actions and orders, regimental headquarters	53
Outpost arrangements and orders	54
Orders, outpost commander	54
Dispositions and orders, Company C.....	55
Dispositions and orders, Picket No. 1.....	56
Dispositions and orders, Company D.....	57
Comment	59
Actions and orders, 2d Battalion.....	61
Orders and arrangements, Company E.....	62
Actions and orders, 3d Battalion.....	63
Orders and arrangements, Company L	64

Events of the morning to 9:30 o'clock	65
Orders, regimental commander for occupation of the position	66
Orders, battalion commanders	67
WITHDRAWAL FROM ACTION	69
Orders, regimental commander	69
Remarks	70
Actions and orders, 3d Battalion	72
Actions and orders, Company I	73
Actions and orders, Company M	73
Actions and orders, 2d Battalion	75
Actions and orders, 1st Battalion	77
A RETREAT	81
Orders, regimental commander	81
Orders, commander rear guard	82
Orders, commander support	82
A Halt	83
Actions and orders, regimental commander	83
A march outpost	84
Orders, commander rear guard	84
A halt for the night	85
Actions and orders, regimental commander	85
Outpost	86
Actions and orders, outpost commander	86
Actions and orders, support commander	87
Sanitary arrangements	89

Part II—An Infantry Battalion

ESCORTING A CONVOY	92
Battalion commander's estimate of the situation	92
An infantry patrol	99
Orders, battalion commander	107
A company as advance guard	108
Arrangements and orders, commander of the escort	108
A BATTALION IN DEFENSE	110
The battalion commander's estimate of the situation	110
Actions and orders of the battalion commander	113
The withdrawal	114

Part III—An Infantry Battalion

ATTACK OF A CONVOY	116
Battalion commander's estimate of the situation	116
Actions and orders, battalion commander	118
Orders, commander advance guard	120
An infantry patrol	120
A battalion attack	125
Advance guard reconnaissance	125
Battalion commander's estimate of the situation	126
His orders for attack	128

Part IV—Cavalry Patrol

AN OFFICER'S PATROL	130
Preliminary arrangements	131
Provision for transmitting information that may be gained	134
A ruse	136
Change of route	137
Simultaneous reconnaissance in several directions	137
Combat of a patrol	140
Disposition made of a prisoner	141
Observation of hostile main body	144
Sending back important information	144

Utilizing friendly inhabitants to gain information.....	146
Going around hostile flank to send information by wire.....	147

Part V—Reconnaissance and Flank Protection by a Squadron

RECONNAISSANCE	148
Distant patrols	149
Advance guard of the squadron.....	150
An advance guard action.....	157
Squadron supports its advance guard.....	159
Pursuit prevented.....	162
FLANK PROTECTION.....	163
Estimate of the situation.....	163
Decision	166
Covering the front during a change of position.....	167
Preparations for an attack.....	167

Part VI—Squadron Combat

MOUNTED ACTION BY A SQUADRON.....	168
Approaching the enemy.....	173
Guarding the squadron's flanks.....	173
Instant action required.....	176
Orders for a mounted attack.....	176

Part VII—Cavalry Regiment

COMBAT BY A REGIMENT.....	178
Supporting a contact troop.....	178
Action when the advance guard is seen to form for attack.....	179
Advantages of the different kinds of possible action.....	184
Dispositions and orders for the attack.....	186
Use of the reserve.....	187

Part VIII—Light Artillery

A BATTERY IN RENCONTRE. ENEMY ON THE DEFENSIVE.....	188
Orders of the commander of the force	188
Estimate of the situation	189
Discussion of possible battery positions	191
Reconnaissance and selection of a position	194
The battery commander's orders	195
Observation and communications	195
Conduct of an infantry support	194

Part IX—Light Artillery

A BATTERY IN RENCONTRE. ENEMY ON THE OFFENSIVE.....	197
Orders of the commander of the force.....	197
Estimate of the situation.....	198
Reconnaissance and selection of a position.....	199
Use of reconnaissance officer and scouts during action.....	200
Comment suggested by students' solutions.....	200

Part X—Light Artillery

A BATTALION IN OBSERVATION.....	202
Covering the flank of a battle line.....	202
A short march with an infantry brigade.....	202
Brigade commanders orders—position in readiness.....	202
A march outpost.....	212
Artillery to position in observation.....	202
Preliminary orders of battalion commander.....	205
His reconnaissance and selection of positions.....	206

Orders to a battery commander.....	207
Occupation of its position by a battery.....	208
Orders to battery commanders.....	210
Assignment of sectors of observation.....	211
Duties of headquarters personnel.....	205, 206, 207, 210, 211, 212
Battery and battalion communications.....	205, 210, 211
Comment suggested by students' solutions.....	212

Part XI—Light Artillery

A BATTALION IN SURPRISE ATTACK AGAINST THE FLANK OF	
A HOSTILE BATTLE LINE.....	215
The march situation.....	215-216
Information en route.....	216
Actions and orders of the commander of the force.....	215, 216, 217
Actions and orders of battalion commander.....	217, 218, 219, 220, 221
Firing data ready for batteries on their arrival.....	217
Assignment of targets.....	217
A battery detached.....	218
Reconnaissance, selection and occupation of its position, and selection of its first target.....	217, 220
Co-operation with infantry support.....	221
Conduct of support.....	220
Comment suggested by students' solutions.....	221

Part XII—Light Artillery

A BATTALION IN THE DUAL ROLE OF SUPPORTING THE	
DEFENSE OF A POSITION AND AN ATTACK.....	224
The march situation.....	224
Orders of the commander of the force.....	225
Preliminary actions and orders of the battalion commander.....	225
General reconnaissance.....	226, 227
Communication with defensive position.....	228
Establishment of observation.....	227, 228, 229
Selection of a position.....	228
Orders to battery commanders.....	228, 229
Auxiliary observation.....	228, 229, 230
Information officers with attacking columns.....	230
Communications.....	230

Part I— An Infantry Regiment

SITUATION

(General Map Gettysburg—Antietam, 1 inch=10 miles, and
Topographical Map, 3 inches=1 mile)

The Pennsylvania—Maryland line separates hostile states. The northern state (Blue) is concentrating its 1st Division by rail at Carlisle. To cover this concentration it has ordered the 1st Infantry to Gettysburg.

Red points of concentration and intentions are uncertain, although the former seem most likely to be Baltimore and Frederick.

The 1st Infantry, on June 17, was moving south on the Gettysburg and Harrisburg Railroad in four sections one hour apart. The leading section detrained at Table Rock Station, 5 miles north of Gettysburg, upon receipt of a telegram from the Gettysburg station agent in which he reported that a thousand Reds had just entered that town from the south.

AN ADVANCE

Colonel A read the telegram to the Major of the 1st Battalion, and directed:

Move south towards Goldenville to cover the detraining of the remainder of the regiment. I'll remain at this station until the next section comes in.

With the fourth section there were 5 days' rations for the regiment. These were in addition to those required on the train, in the ration section of the field train, and on the person. The regiment had 3 ambulances.

The Regimental Quartermaster was unloading the wagons and animals, the wagons by a ramp at the end of one car, and the animals by another ramp on to the station platform. Prepared ramps had been brought on the train. The Quartermaster was assisted by the teamsters, the company Q. M. Sergt., cooks, artificer, clerk and four men from each

company. The work proceeded with the utmost rapidity since the train had to get back to Aspers, some five miles north, to find a siding long enough to permit the prompt passage of the 2d section.

The colonel reported his action in detraining at once to the Division Chief of Staff in Carlisle. In sending this telegram and the necessary railroad ones for the passage of the following trains by the empties, Gettysburg, needless to say, was cut out of the line.

A Covering Battalion

8:15 a. m. Major B assembled his officers at 8:15 a. m., and directed:

A thousand Reds are reported to have entered Gettysburg this morning.

This Battalion marches on Goldenville to cover the detraining of the remainder of the regiment.

Lieut. K (Bn. Adjt.) will patrol with his orderly to the Hamilton farmhouse, about a mile south of Goldenville, taking station for observation in that vicinity.

Company A will constitute the Advance Guard, and will march at once by the railroad to Goldenville, and thence across country to knoll 651.

Companies B, C, & D, in the order named, will follow at 500 yards.

Sergeant L (the Bn. Sergt. Major) will take the ammunition wagons, as soon as they are unloaded, via Table Rock S. H. and the unimproved road to join the Battalion near Goldenville.

I will march between the Advance Guard and the Main Body.

The major before starting to issue this order, spread his map on the station platform. He issued his order slowly, pointing out each place as he named it, but permitting no interruption until the complete order was given. He then answered the questions of those who had failed to grasp any part of it.

8:40 a. m. Lieut. K informed his orderly of the enemy's presence in Gettysburg. He then moved, at 6 miles an hour, via Texas and the Carlisle Road. At 8:40 a. m., the lieutenant, leading by 50 yards, approached the Hamilton farmhouse. He stationed the orderly, mounted, near roadfork 646, watching down both roads to the south, tied his horse at the gate, and using the farm telephone tried to get Gettysburg. Failing there he tried the farmhouse on the same party line to the south but without result. Then going to the orderly, he directed:

Stay at this point, observing particularly down the right hand road (towards C. Topper). I am going to the clump of timber on that knoll (pointing to 664) and will show myself to you as soon as I get there. If you see anything unusual come to me under cover to report.

The lieutenant then took station just under cover of the southern edge of the timber, where he could keep both branches of the Carlisle Road and his orderly in view.

A Company in Advance Guard

The officers of A company immediately upon receipt of 8:25 a. m. the major's order rejoined the company; the non-commissioned officers and other squad leaders were assembled and, at 8:25 a. m., the captain ordered:

A thousand Reds are reported to have entered Gettysburg this morning.

Our Battalion marches to the south to cover the detraining of the remainder of the Regiment. Lt. K has gone with his orderly to take station a couple of miles down the road towards Gettysburg.

This company forms the advance guard.

Lieut. N with the 1st Platoon, as advance party, will precede the remainder of the company by 400 yards. March by the railroad to Goldenville, and thence across country to the crest a half mile to the southeast. Move rapidly until your distance is gained.

Sergeant J (left guide) will be on the alert for signals from the rear.

The musicians will march with me at the head of the company.

Squad leaders will tell their men of the enemy's presence in Gettysburg.

(The musicians are kept in observation of the terrain, one to the right, the other to the left of the road.)

The captain put the company in march as soon as the advance party had its distance.

At 8:45 a. m., near the farm road crossing of the railroad north of Goldenville, the captain directed Corporal Y, of the 5th squad: 8:45 a. m.

Take your front rank and patrol to the top of that hill (707). Remain there in observation to the west and south. I will establish a semaphore station on one of those houses to the south (Goldenville). Get connection with that station.

At 8:50 a. m., in Goldenville, to Corporal R, of the 6th squad: 8:50 a. m.

Take your front rank and patrol east along this road (the Golden-ville-Hunterstown) to the first crossroads about $\frac{3}{4}$ mile east of this place (Goldenville). Remain in that vicinity in observation to the east and south. The company marches on that low knoll (651) a half mile to the southeast.

A Position in Readiness

8:47 a. m. At 8:47 a. m., Major B directed the captain of A Co.:

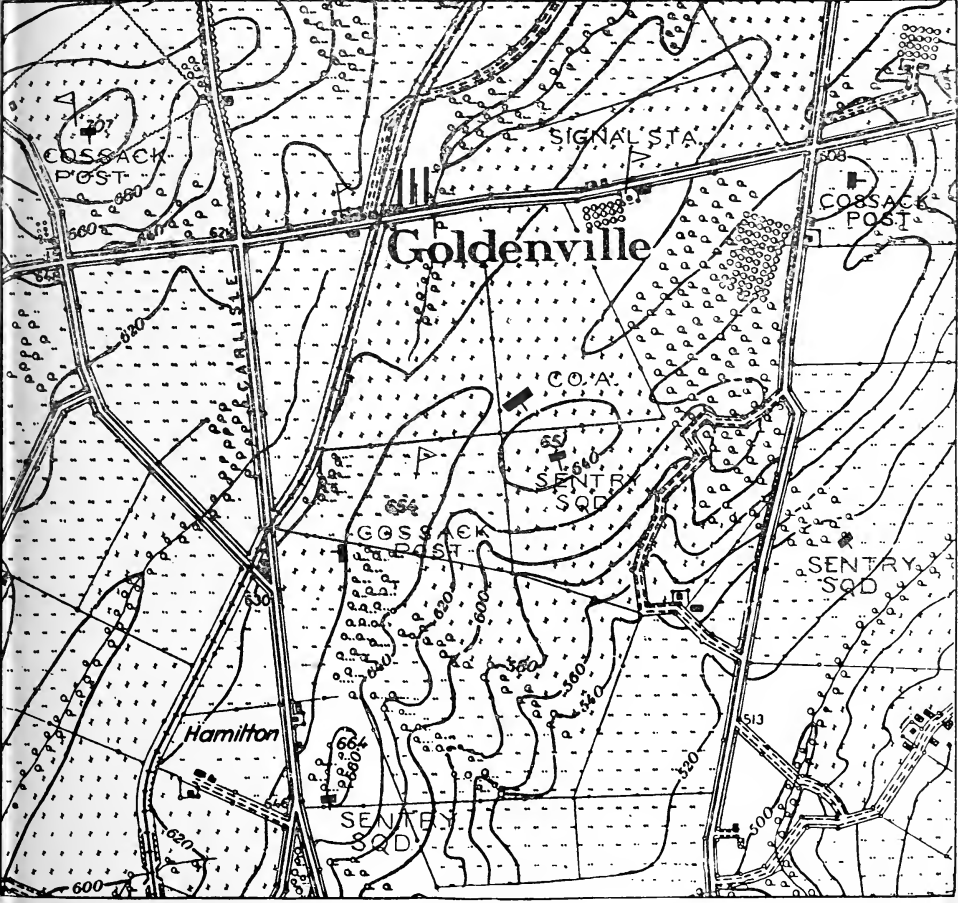
The battalion, less your company, will assemble east of Golden-ville. Your company will take station on knoll 651, and provide security to include both branches of the Carlisle Road. Get semaphore connection with Goldenville, and connect with Lieut. K, who should be near Hamilton's.

9:20 a. m. By 9:20 a. m., the battalion was disposed as follows: Companies B, C, and D were east of Goldenville and between it and the nearby stream line. Arms were stacked and packs removed, but the men remained close at hand. A signal station was on the western building of Goldenville. One musician thereat was watching knoll 654, another hill 707 and Table Rock Sta., and a third, the farmhouse 700 yards east of Goldenville. The combat wagons had joined and were in column, facing south, on the unimproved road.

The main body of A Co. was in the saddle between knolls 654 and 651, but north of the crest. One squad was marching to relieve Lieut. K on knoll 664. (The lieutenant when relieved left his orderly as messenger with this squad and went back to report to the major.) A cossack post was at the northwestern corner of the patch of timber between knolls 654 and 664. A semaphore station was on knoll 654 in communication with Goldenville. And two signallers were on the house $\frac{1}{2}$ mile east of Goldenville for communication with the cossack post south of crossroads 608. A sentry squad was on knoll 651, and another near the southeast edge of the timber $\frac{1}{2}$ mile southeast of knoll 651. A cossack post was on hill 707. (See sketch No. 1.)

Major B has taken up a position in readiness at Goldenville from which point he can move on short lines to meet the enemy in whatever direction the latter may advance. The eastern branch of the Carlisle Road is the direct one to that town, and therefore the one most likely to be used by an enemy moving against it. That road is covered by the greater part of one company from knoll 651, which will be

SKETCH NO. 1. Position In Readiness. June 17.





able to offer sufficient resistance to give time for the coming up of the remainder of the battalion. If the enemy advances by the western branch, the major will not go out to fight near Hamilton's since he would be getting entirely too far from the rest of the regiment, but will take a position east of hill 707 across the Carlisle Road. And in the unlikely case of a hostile advance by roads east or west of these most direct routes, suitable positions within short distances of Goldenville are to be found for opposing the enemy.

With the excellent views obtained from hill 707 and the Hamilton—651 ridge, but few and small detachments are needed to provide ample security. It is sufficient to keep the bulk of the command together in one place, provided prompt information is forwarded as soon as the detachments in observation catch sight of the enemy. Only $4\frac{1}{2}$ squads altogether are detached from A Co. to furnish a line of observation, but the greatest care is taken to organize a system of communication through which there will be prompt receipt of the information obtained by these groups.

Incidents and Actions to 1:00 p. m.

The second section containing the 2d Battalion reached Table Rock Station about 9:00 a. m. By 9:30 it had unloaded and was ready to march. The quartermaster was left at the station to forward the remaining troops as they came in, get his field train together, and store the extra 5 days' rations. The colonel marched with the 2d Battalion to Goldenville, where he arrived at 9:50 a. m. The 2d Battalion assembled north of the 1st. Nothing further had been heard of the enemy, and no one had been able to get into communication with Gettysburg or any of its nearby farms by telephone or telegraph.

9:00 a. m.

9:50 a. m.

Colonel A's most pressing need is for information. The report of the number of hostile troops in Gettysburg may be grossly exaggerated, as is so likely to be the case with civilian estimates. If so, a good deal of time is being lost and unnecessary labor performed. But the inability to obtain telephone or telegraph communication with Gettysburg or its neighborhood corroborates the operator's telegram at least to the extent that the enemy certainly has some force

therein. It would not do, of course, to proceed farther by rail until Gettysburg is clear of the enemy nor, in the present uncertainty about the enemy's strength and intentions, would the colonel be justified in marching before he has his whole regiment together. Even if all of the sections come in on time the regiment can hardly be assembled at Golden-ville before twelve or twelve-thirty. At best then it cannot march before the hour last named. Meantime information must be obtained as to the situation in Gettysburg.

The position of the 1st Infantry is very unusual in that the regiment has been detached to a considerable distance from support, without any attached cavalry to do its distant reconnoitering. But, while Colonel A sadly misses the mounted troops, there is nothing to be gained by bemoaning the fact; he has simply to take his problem as it has developed and obtain the best solution with the means available.

The distance to Gettysburg is too great for the use of dismounted patrols unless no other means can be found. That town is two hours' march away. If the patrol marched straight there and back, with no delay of any sort, what it learned would not be at hand before the middle of the afternoon. And patrols, naturally, cannot obtain information by such simple and direct procedure.

But there are the mounted orderlies and the mounted officers. The Colonel accordingly selected the adjutant of the 2d Battalion to lead a patrol made up by giving him four of the regimental orderlies and directed him:

The Gettysburg agent of the P. & R. telegraphed me a little before 8:00 o'clock that a thousand Reds were then entering the town. We have been unable since to get Gettysburg either by telephone or telegraph. I want you to take four of the headquarters orderlies, and proceed thereto by routes entering town from the west to learn the hostile strength and dispositions. Let me have a report by 12:30 p. m. I will remain here till the last companies are up, which will be about that hour.

About 12:30 p. m. the colonel received the following message:

No. 1. Knoll $\frac{1}{2}$ mile west of PENN COLLEGE.

17 June, 11:30 a. m.

12:30 p. m. Can see Red troops intrenching north of PENN COLLEGE. Retired Blue soldier tells me Red regiment came into town from south about

8:00 a. m.; two battalions went through to north; a third is collecting money and supplies and loading onto impressed transportation. Blue soldier had overheard men this battalion talking, his impression regiment half recruits. Remain here in observation.

L,
Lieut.

1:00 p. m.

By 1:00 o'clock, the regiment was united at Golden-ville. The men had lunched.

The Regimental Commander's Estimate of the Situation

Lieut. L was exceedingly fortunate in obtaining so promptly such detailed information, which from its source can be accepted as accurate. With that information at hand Colonel A has to decide upon his future action. His mission is to cover the detrainning of the division at Carlisle. To perform that he was ordered to Gettysburg. But he must not take his orders too literally. His important duty is to remain between any hostile force and Carlisle. Shall he carry that out by remaining where he is, making preparations only for fighting defensively if the enemy comes north, or shall he move aggressively on Gettysburg and attempt to throw the Reds out of that town?

While the enemy is intrenching north thereof, it is probable nevertheless that only a temporary occupation of Gettysburg is intended, and that the Reds will withdraw as soon as they have got their booty beyond reach, since Gettysburg itself is of no particular value to them unless they are starting a general advance. That such may be the case, although no news of any further hostile troops have been received, is of course a possibility, and must be kept in mind. Initial successes upon the outbreak of war very greatly affect the morale of both sides, and are consequently of considerable importance. To obtain one in this case by attacking seems very possible for the Blues if there is in Colonel A's front a single Red regiment, composed largely of recruits, and hampered also as the Reds are by their convoy and the hostile town behind them. If, on the other hand, Colonel A contents himself with holding his regiment supinely nearby while a Red regiment works its will upon a large Blue town, the moral affect upon the Blue troops and

the civil population will be anything but good. While keeping his main mission of covering the remainder of the division very carefully in view, the colonel therefore believes himself justified in an aggressive advance to attack the Red troops in Gettysburg.

He must next decide upon a route. The direct road is now by way of Boyd schoolhouse. It has the advantage also over the eastern branch of the Carlisle Road that the march of the regiment will probably be concealed a little longer from hostile view. The route farther west by the C. Topper farm and the Mummasburg Road is a mile longer. The more promptly he can close with the enemy the better, because the chances of preventing the escape of the hostile convoy are thereby increased, and because the day is already advanced, and daylight is necessary for securing the full fruits of victory. The enemy's work in intrenching seems chiefly designed to meet a Blue advance from the north. It is possible that a movement by the Mummasburg Road would strike those trenches more or less in flank. The enemy's information in hostile country will be relatively poor. To come in by the Mummasburg Road, the regiment's march would be under cover of Oak Ridge until close at hand, and it is just possible that the enemy might not learn of the Blue's approach until too late to construct or move into trenches in this direction. But the Reds can be expected to have a security detachment of some sort on Oak Ridge; and the probabilities are the enemy would learn of the Blue approach in ample time to make the slight changes, on short lines, that would be required in his dispositions to oppose the Blues from the new direction. Nothing then would have been gained by the Blue detour. While the deployment to attack would be made from commanding ground, yet an envelopment of the enemy's left would have to proceed through timber shown by Colonel A's map to have a heavy undergrowth. The consequent breaking up of the formations of the main attack and difficulties of communication would lessen the prospect of success very materially.

An advance by the Mummasburg Road would uncover Colonel A's proper line of retreat, but, being in Blue territory, this would make very little difference so far as the

safety of the 1st Infantry alone is concerned. It could retreat towards Mummasburg in about as great safety as towards Carlisle. But, in doing so it would uncover the main body of the division. The requirements of Colonel A's larger mission, to cover the division's concentration, must not be forgotten. In the usual case such a mission can best be fulfilled by remaining squarely between the hostile forces and the point of concentration; and in this case to do so is more than usually expedient, because Colonel A is in some uncertainty as to what assistance the Red regiment may receive from the south. If he strikes superior hostile forces he wants to be able to retire directly towards Carlisle. On the whole the advantages of the direct route towards Gettysburg outweigh those of any other. He decides to march by Boyd schoolhouse.

And he must march in one column. To send a portion of his command directly on Gettysburg while the remainder made in effect a turning movement by the Mummasburg Road would be an inexcusable dispersion in the face of an enemy at least equal in numbers.

Orders for a March Forward

He accordingly issued verbal orders, at 1:00 p. m., to his 3 majors, commanding officer Machine Gun Company, and staff, in Goldenville, as follows:

1:00 p. m.

Lieut. L is with two orderlies west of Gettysburg. He reports that the Reds are intrenching north of Penn College, and that they seem to have a total strength about Gettysburg of one regiment, half of whose men are recruits.

This regiment will march on Gettysburg.

The 1st Battalion and the Machine Gun Company will constitute the Advance Guard, and will proceed at once by the Hamilton farm and Boyd S. H.

The remainder of the regiment, in the order: 2d Bn., 3d Bn., Band and ambulances, will follow at one-half mile.

The field train will await orders at Texas.

Regimental headquarters will march between the advance guard and the main body.

Dispositions of the Field Trains

In compliance with the above instructions for the field train the Quartermaster, after storing the 5 days' surplus rations in the house and on the platform at Table Rock Station, left a corporal and 3 men of his detail in charge thereof. The remainder of the unloading detail was directed to march

via Goldenville to join the regiment. The train then moved by the unimproved road westward till its head halted at the Texas crossroads, in which position it was so placed as to be able to move at once either north or south. The Quartermaster sent a Q. M. sergeant and 3 men to hill 707 in observation; put a signal station on one of the houses of Texas in communication therewith and in observation to the west; stationed a sergeant and 3 men at the edge of the timber midway between Texas and Table Rock Station, and another sergeant and 3 men at the roadfork 100 yards west of Texas. The wagons were all drawn well to the left side of the road and closed until the leaders noses were at the tailgate of the wagon ahead. The remainder of the men (Company Q. M. sergeants, cooks, artificers and clerks) stacked arms in the field opposite, and north of the middle of the train, and remained within a few yards of their pieces, except one sentry who was alert at the stacks. The Quartermaster sent mounted men at once to reconnoiter the two bridges north and northwest of Texas, the roads as far north as Biglerville and to find a place for watering. Receiving the report of the last, he had the teamsters unhook two of their animals at a time and sent them to water at the ford of the Conewago, 400 yards east of the Carlisle Road.

A Battalion in Advance Guard

Major B, rejoining his battalion, assembled the captains
1:10 p. m. of Cos. B, C, D, and the Machine Guns, and issued the following verbal orders, at 1:10 p. m.:

Lieut. L with two orderlies is west of Gettysburg. He reports that the Reds are intrenching north of Penn College, and that they seem to have a total strength about Gettysburg of one regiment, half of whose men are recruits.

Our Regiment marches on Gettysburg.

This Battalion, reinforced by the Machine Gun Company, constitutes the advance guard.

Co. B, with Lieut. K (Bn. Adj't.) and his orderly, will form the advance party, preceding the remainder of the battalion at 400 yards. The advance party will march at once by the railroad to the Carlisle Road and thence by the Stock Farm and Boyd S. H.

Companies C, D and the Machine Guns will follow, in the order named, as soon as B Company has its distance. C Company will regulate the pace.

I will send A Company as left flank guard by the eastern branch of the Carlisle Road.

The combat wagons will proceed at once by the crossroads a quarter of a mile west of Goldenville and the Carlisle Road so as to join the tail of D Company at the railroad crossing.

I will march behind the advance party.

Major B then rode rapidly to A Company, and directed its captain:

Lieut. L with two orderlies is west of Gettysburg. He reports that the Reds are intrenching north of Penn College, and that they seem to have a total strength about Gettysburg of one regiment, half of whose men are recruits.

Our Regiment marches on Gettysburg.

The 1st Battalion and the Machine Guns constitute the advance guard.

The rest of the Battalion, B Co. as advance party, is proceeding by the western branch of the Carlisle Road.

Your company will march as left flank guard by the eastern branch of the Carlisle Road.

I will ride between the advance party and the support.

A Company as Advance Party

The captain of Company B assembled his officers and non-commissioned officers, and, at 1:17 p.m., issued verbal orders to them and to Lieut K (Bn. Adj.) as follows: 1:17 p. m.

Lieut. L with two orderlies is west of Gettysburg. He reports that the Reds are intrenching a short distance north of that town, and that they seem to have a total strength about Gettysburg of one regiment, half of whose men are recruits.

Our Regiment marches on Gettysburg, the 1st Bn. and Machine Guns as advance guard. A company will march as left flank guard by the first road east of this place (Goldenville.)

This Company constitutes the advance party, and will march at once by the railroad and the west branch of the Carlisle Road.

Lieut. K with his orderly will trot ahead as mounted point to precede the company by about a mile.

Lieut. M (1st Lieut.) will take the first squad as the point, preceding the company by 300 yards. He will move rapidly ahead to get his distance.

The company will march as soon as the point has its 300 yards.

Sergeant M (left guide) will watch for signals from the rear.

Approaching roadfork 646, the captain directed Sergt. K, the company's right guide:

Take the first two squads. Patrol down this road to the right till you strike the railroad about half a mile from this point, thence along the railroad some two miles until you reach the Mummasburg Road a mile northwest of Gettysburg. Communicate by semaphore with the company at least once every mile. If you see nothing to report, simply signal O.K. You are likely to find the enemy in some strength near the Mummasburg Road.

Near the stock farm the captain sent a patrol of 2 men to the southeast to knoll 576 and to rejoin at the tail of the company. These two patrols were the only ones sent out during the first hour. The captain marched at the head of the company with his two musicians, one of whom kept track of the flank guard and watched the terrain to the east of the road, the other similarly kept track of the progress of Sergeant K's patrol and of the ground to the westward. Both were alert for and prepared to receive messages from the directions assigned them.

Flank Patrol

It may be of interest to see how Sergt. K conducted his flank patrol. Turning off to the right with the designated squads at roadfork 646, the sergeant halted his patrol as soon as it had cleared the main road, and gave instructions as follows:

This detachment moves as a flank patrol to the railroad half a mile down this road, and thence along the railroad a couple of miles farther.

Corporal L, take your front rank rapidly ahead as the point. When you've gained 200 yards regulate your gait by mine.

The remainder of the detachment, Right by Twos, March. Open up the files, one going on each side of the road. Take 5 paces distance between men. Corporal B, watch the ground to the right of the road; Private L, to the left of the road.

The patrol moved at about a $4\frac{1}{4}$ mile gait along the designated route, so as to get even with or ahead of the dismounted point on the main road. Near the crossing southeast of C. Topper, it halted while a signaller caught the company, and got an acknowledgment of his O. K. During this halt, the sergeant came forward to direct the point to leave the railroad, and move along the crest of Oak Ridge. Through the light timber thereon, the patrol moved in much the same formation as it had previously except that the point's distance was cut down to about 100 yards, and the sergeant sent forward a connecting file. Two men were sent around the west side of the heavy patch of timber north of J. Forney to rejoin on knoll 642. On arriving at that knoll the point halted, deployed, at the timber's V-shaped opening south of the crest; two men from the main body of

the patrol were sent through the orchard to the J. Forney house, and O.K. was again signalled to the company. The column was seen to be halted at the end of the first hour and during that halt the patrol's main body rested north of the crest of knoll 642.

A Company as Flank Guard

As soon as the captain of A Company received the major's order, he assembled his officers and noncommissioned officers, including all squad leaders except those away with detachments, and at 1:30 p. m. directed:

1:30 p. m.

The enemy is believed to have one regiment in Gettysburg.

Our regiment is marching on that town, the 1st Bn. and machine guns as the advance guard. All but this company are moving by the road west of us.

A Company marches as the flank guard.

Lieut. J (2d Lieut.) and the 4th Platoon will constitute the advance guard of this company and will march at once by the country road east of this knoll (651) and the east branch of the Carlisle Road. The advance guard will precede the rest of the company by 500 yards.

The captain had the detachments on hill 707, and near roadfork 608 signalled "Join Co." and sent men to direct the detachments towards Hamilton's and a half a mile east of knoll 651 to join the company enroute. He followed the advance guard at the proper distance with the main body of the company.

A Platoon as Advance Guard of a Company

Lieut. J had the 4th Platoon fall in immediately and marched it to the fence corner east of knoll 651. There he issued orders to the entire platoon as follows:

The Reds are believed to have one regiment in Gettysburg. Our Regiment is marching against them, the 1st Battalion as advance guard. All but A Company are going by the road west of us, A Co. goes by this road to the south (pointing out the east branch.)

This platoon is the company's advance guard.

Sergeant M, with Corporal K and the Corporal's front rank, will constitute our point, preceding the remainder of the platoon by 300 yards. March by this country road to the highway. Move rapidly until you get your distance; then regulate your march by my gait.

Corporal K (at the tail of the platoon) will watch for signals from the rear. We are to keep about 500 yards ahead of the company.

The point moved out at about a $4\frac{1}{4}$ mile an hour gait, in double column of files, one file on each side of the road, and with some 10 yards distance between men. The sergeant and the corporal were on the left side of the road, the sergeant leading. The sergeant watched chiefly to the front, the corporal to the left front and left. The 3 privates were on the right of the road, the leader observing down the road, the next, to the right front and right, and the third watched for signals from the rear.

The platoon sent forward single men as connecting files, spacing them about 100 yards apart. The platoon itself marched in double column of files opened well out on each side of the road to make a poorer target from the front, but the men of each file took only about one yard of distance. The lieutenant observed chiefly to the front, but he required the men of each file to watch toward their proper side and call his attention to anything they happened to observe.

The company marched in column of squads, sending forward connecting files towards its advance guard.

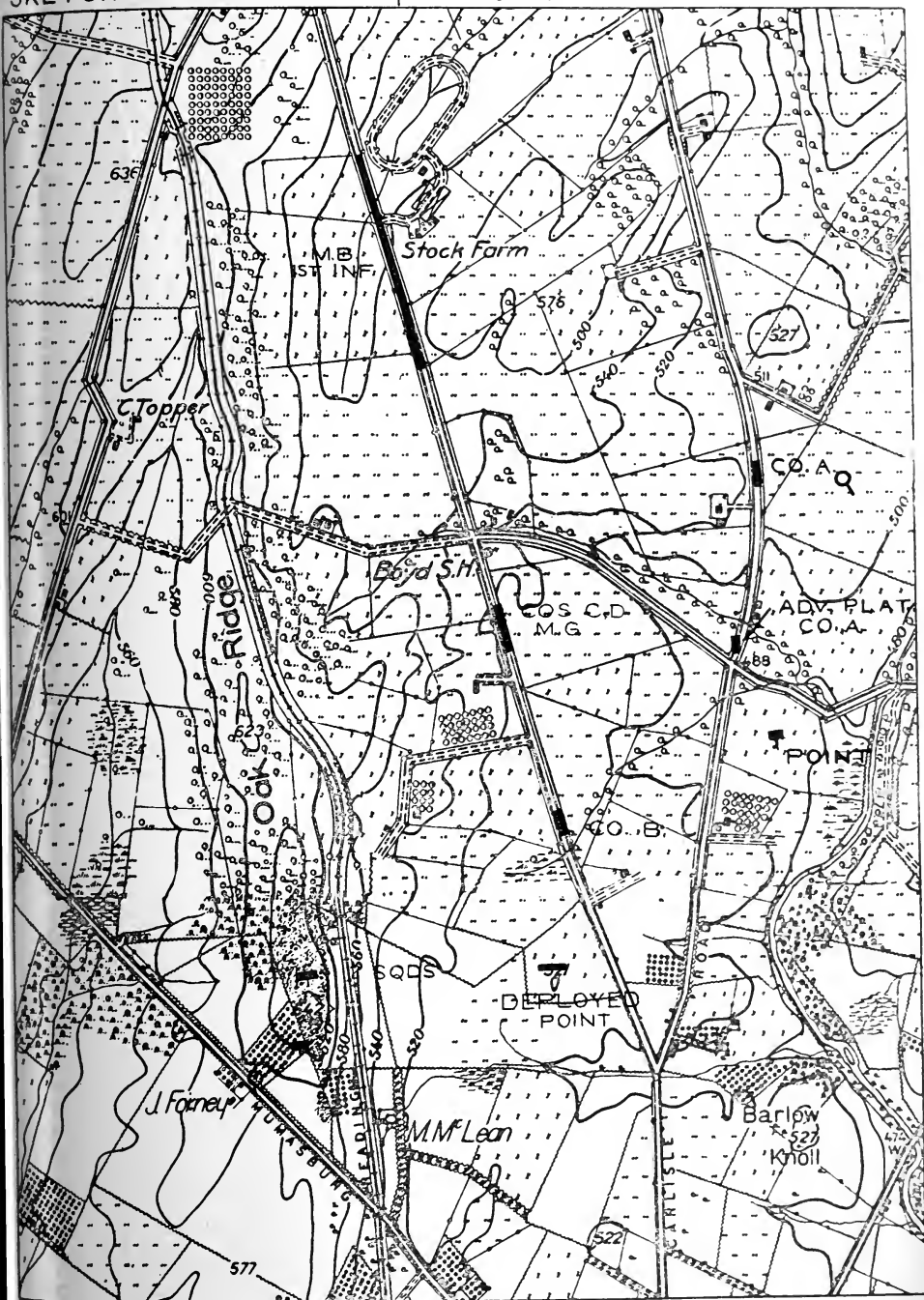
The advance guard sent out one patrol of four men at roadfork 513, to move to the southeast across Rock Creek, and across country east of it, to come in again near roadfork 511. No other patrols were used during the first hour's march.

A March Outpost

At 2:20 p. m., when the dismounted point of the right column reached a point 600 yards northwest of the junction of the two branches of the Carlisle Road, a ten minute halt was ordered. As Lieut. K (the Bn. Adjt.) with the mounted point rode over the crest east of knoll 521, he was fired upon from the direction of knoll 522 to the south. And he had at 2:20 fallen back on the dismounted point to report this fact.

The dismounted point did not halt at once when the signal to do so was received, but continued to the crest at knoll 521, deployed and lay down. Sergt. K's two squads over on Oak Ridge, which were about abreast of the point on the main road, signalled O.K. from knoll 642, and remained

SKETCH NO. 2. March Outpost. June 17.





thereat. B Company halted near the stream 400 yards northwest of its point. One musician remained in observation to the east and southeast, the other to the west and southwest. A Company's point was about 300 yards south of crossroads 488, and A Company's main body was east of the farmhouse 500 yards north of crossroads 488, with a patrol of two men 300 yards to the east. C and D Companies and the Machine Guns were halted opposite the farmhouse 400 yards south of Boyd S. H. The head of the main body of the regiment was 500 yards north of that schoolhouse. Throughout the regiment the left half of the road was absolutely clear of officers, men and animals, at the halt as it was on the march, in order to permit the passage of mounted messengers at the highest gaits, without necessity for drawing rein at any point. One man in each company of the command watched for signals along the column, and the ground as well to both flanks.

It is evident how very simple need be the arrangements to provide ample security during a short halt even when, as in this case, all indications are that the enemy is very close at hand. If the halt were at all prolonged it would be necessary to make more elaborate arrangements, occupying, for example, Oak Ridge with detachments both west of C and D Companies, and west also of the main body of the regiment. The longer the stay is to be, the more elaborate, naturally, must the arrangements become because of the greater time given the enemy to move about and select a point of attack.

THE ATTACK

Advance Guard Reconnaissance of an Enemy in Position

When the captain of B Company received Lieut. K's report that he had drawn fire from knoll 522, he sent the lieutenant back to make the same report to the major, and went forward himself to the point. There he was shortly joined by Major B.

It then became necessary to determine whether the enemy's main position was on the low elevation containing knoll 522, or farther south with simply an outpost near 522. And to get this information as promptly as possible was, of course, the business of the advance guard. Major B accordingly directed the captain:

We must locate the enemy's main position. Take the bulk of your company straight south along the Carlisle Road to drive in any hostile covering detachments. Send strong patrols to locate the enemy's flanks. I will bring the machine guns to this knoll for your support and assemble the other companies at the orchard north of us. Lieut. K (the Bn. Adj.) is sending an ammunition wagon up to your company.

The major then rode back to order the machine guns to knoll 521, to report his actions and intentions to the colonel, and to bring forward the remaining companies of the first battalion.

2:30 p. m.

Captain B (Commanding B Co.) at 2:30 p. m. directed the lieutenant in charge of the point:

I'll send you another squad in a few minutes. When it joins you, move your reinforced patrol east to Rock Creek and thence south to locate the hostile right. I am going to take the company straight down this road to develop the enemy's main position.

2:35 p. m.

The captain next moved back, north of the crest, until he and a musician who accompanied him were perfectly concealed from the front, and told the musician to call Sergeant K's patrol (the one on Oak Ridge). He then, at 2:35 p. m. gave the musician, word by word, as it was semaphored, the following message:

Move south. Locate Red left.

Returning to the company, he had extra ammunition issued, directed one squad to report to the first lieutenant (near knoll 521), and before marching at 2:45 p. m. informed the company: 2:45 p. m.

The Reds fired upon our advance from a point about three-quarters of a mile to the south. This company moves down the road we are on to locate the enemy's main position. Sergt K, with two squads, is moving south along the ridge to the west, and Lieut. M, also with two squads, down the stream to the east. When we deploy, Corporal B will take C and O as a combat patrol to cover our right flank, K will take L and M as a combat patrol to cover our left. Both these patrols should keep several hundred yards to the front of the skirmish line and four or five hundred yards to the flank.

The chief of each flank platoon caused one man to keep track of the progress and location of the adjacent combat patrol.

Approaching the crest east of knoll 521, the captain commanded: *As skirmishers, Guide Right, 3 paces, March*, and the company advanced steadily towards knoll 522.

The captain made his reconnoitering patrols strong because they would probably have to drive in detachments of Reds to get the desired information. The combat patrols were small because only information of the presence of hostile forces was desired from them. They were echeloned forward in order that the location of flanking groups of the enemy might be learned before the company's line came under the fire of such.

Reconnoitering Patrols

When the second squad joined, Lieut. M (commanding the point) said to his men:

The company is going down this road to find out what is in our front. This patrol will move east and then south to locate the enemy's right. Corporal B, you will go ahead with your front rank to the orchard east of us and then towards that low knoll (pointing to Barlow). K, with the rear rank of that squad, will follow the corporal to the orchard, then go on east to the stream (Rock Creek) and then south near it. I'll follow the corporal at 100 yards. Corporal C will deploy his squad at 3 paces and follow me at 100 yards. All 3 parties will each have one man constantly watching me for signals.

Barlow knoll was found unoccupied. The patrol at once moved east under cover of the knoll to the Harrisburg Road. Starting towards Gettysburg thereon, it quickly

drew fire from the County Almshouse. Small Red groups were shortly afterwards seen retreating from the Almshouse towards Gettysburg. Meantime, the patrol moved rapidly east to Rock Creek, and under shelter of its fringe of trees, thence on to the south. Four men, under Corporal B led at 150 yards, while two other men crossed the stream and moved as a flanking group just east of the timber beyond. The remainder of the patrol was in column of files, the lieutenant at the head. At the mouth of Stevens Run, the patrol again turned towards Gettysburg up the bed of that stream. But after going some three hundred yards in this direction they were fired upon from the roadfork at the letter H in Harrisburg. The patrol promptly took cover in the light timber just south of Stevens Run, and rapidly worked back to the east a hundred yards or so until it was sheltered by the small nose from the direction of the enemy's fire. Deploying his advance party then at five paces, Corporal B moved quickly towards the York Turnpike exit of Gettysburg. Two men were sent south to the railroad near 471-W. The remainder of the patrol deployed at 3 paces and lay down. Corporal B's movement promptly drew fire from the buildings between the Hanover Road and the York Turnpike. His party was compelled to take cover in the small depressions afforded by the nearby ground. The lieutenant reinforced him with one squad and opened fire. The hostile reply was so heavy as to make certain the enemy had too many men to permit a further advance in that direction. He accordingly crawled over to the nose on the right flank of his patrol, and began searching the ground north of Gettysburg with his glasses. What he saw caused him to write the following message:

No. 1

100 yards south STEVENS RUN, north of
YORK TURNPIKE exit GETTYSBURG.

17 June, 3:20 p. m.

Red trenches visible extending HARRISBURG ROAD, 500 yards southwest ALMSHOUSE, across MUMASBURG ROAD. Direction slightly north of west. Trenches full of men. Seems to be one company in support near HARRISBURG ROAD, 200 yards behind hostile right. My patrol held here by hostile fire from eastern exit GETTYSBURG.

M,
Lieut.

The lieutenant moved back to his 6 men in reserve and sent two with the message to find B Company. He then started a patrol of 3 men to the south to work into Gettysburg from that direction. The remainder of the men were gradually drawn back to better cover.

Let us turn now to Sergeant K's patrol on the western flank. Upon receipt of the semaphored order, leaving 4 men as a reserve to follow at 300 yards, the sergeant deployed the 10 remaining (2 men are at J. Forney) at three paces and advanced towards knoll 577. This movement drew fire from 15 or 20 rifles on 577 and in the edge of the timber east of that knoll. The patrol reached the ditch of the Mummasburg Road. The sergeant then directed the next in rank to hold the patrol in that position during his absence. With 3 men, he worked down the railroad to the farm road crossing thereof south of the Mummasburg Road. From that point he could see a hostile trench to the southeast. A small hostile group behind a nose less than 400 yards to the south convinced the sergeant he could get no farther in that direction. Returning to the Mummasburg Road, he wrote the following message:

No. 1

MUMMASBURG ROAD south of MCLEAN farmhouse,
17 June, 3:10 p. m.

From point 300 yards south of this, I have seen Red company trench on low knoll northwest of PENN COLLEGE and about 500 yards to southeast of point where I was. No signs of trenches to south. Reds still at work in trench seen. Could locate no reserves. My patrol held southeast of J. FORNEY by hostile detachment 500 yards to south.

K,
Sergt.

Two men were sent with this north of knoll 522 to deliver it to Captain B. The sergeant then started three men to work around to the west and into Gettysburg from the direction of the Lutheran Seminary.

By 3:10 p. m. Company B was lying down on a front of 300 yards along the 522 ridge on both sides of the Carlisle Road. Only a few scattered shots met its advance thereto, these coming principally from knoll 522 and the direction of the Almshouse. After some minutes spent in careful observation to the south, the captain wrote the message quoted below:

3:10 p. m.

CARLISLE ROAD, northwest of ALMSHOUSE,
17 June, 3:25 p. m.

Major B:

3:25 p. m.

Hostile trenches visible along low crest about 700 yds. south of crest I am on. Trenches seem to extend from HARRISBURG ROAD to include low knoll west of MUMASBURG ROAD. Have drawn fire from central trenches due south this point. Only small hostile parties were on 522 ridge.

B,
Captain.

The reports from the two flank patrols were sent back to the major as they came in.

3:30 p. m.

At 3:30 p. m. Companies D, C, and A, were in line of companies in columns of fours at full intervals across the stream line midway between Barlow Knoll and knoll 521. The machine guns were in the draw head northeast of knoll 521. Extra ammunition had been issued to the 1st Battalion. The combat wagons, containing the packs of D, C and A companies, were east of the Carlisle Road, north of the orchard north of knoll 521.

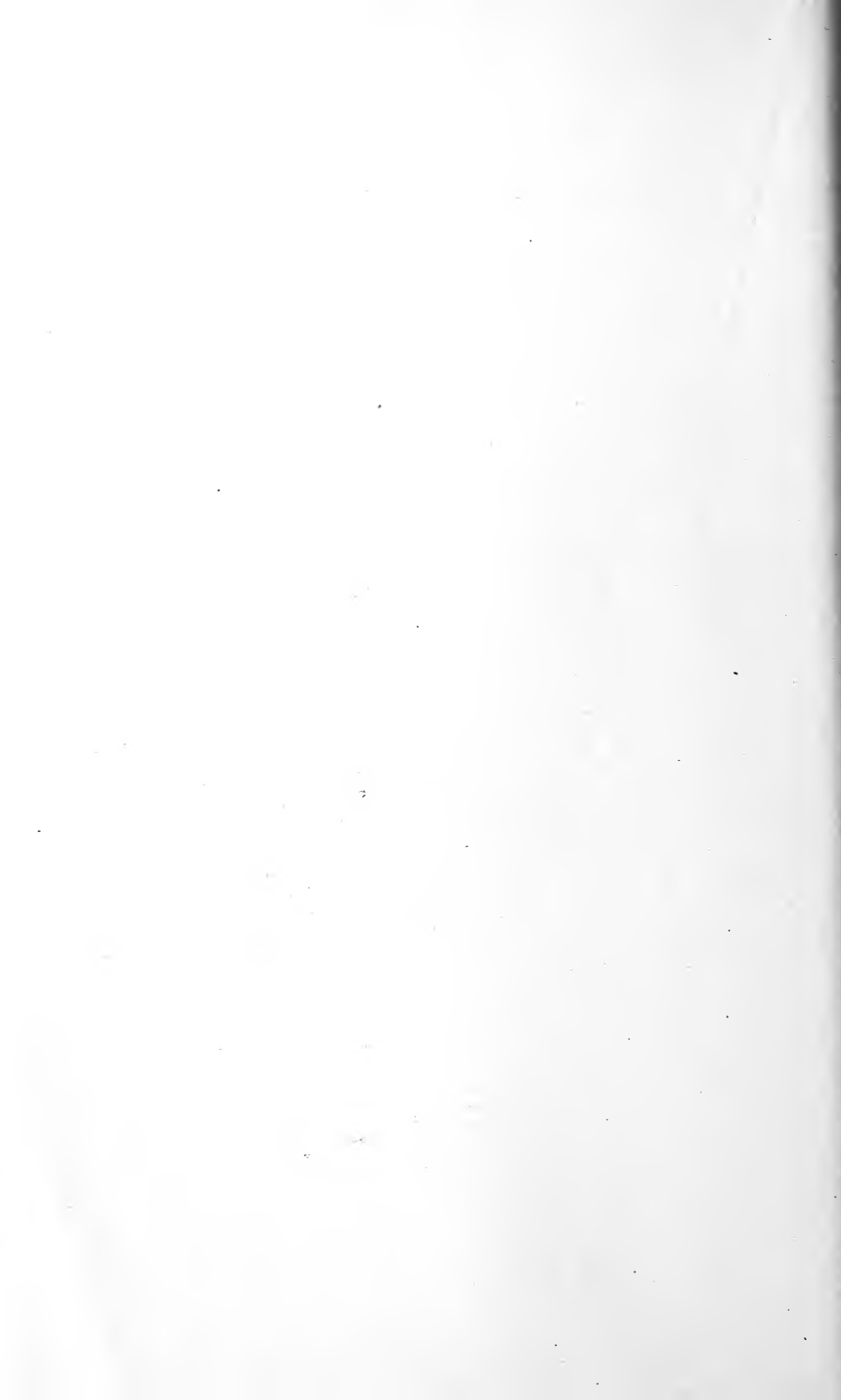
The 2d and 3d Battalions were in column on the Carlisle Road with the tail of the 3d Battalion near Boyd S. H. Extra ammunition was being issued, and the men's packs placed on the emptied combat wagons upon the order of the colonel. The colonel with his staff and majors was on Barlow Knoll. By 3:35 p. m. he had received the reports of Captain B and of B Company's two flanking patrols. (See Sketch No. 3).

Regimental Commander's Estimate of the Situation

Colonel A estimates the situation somewhat as follows: The reports of Captain B and those of his two flanking groups pretty definitely establish the length and location of the hostile trenches. Their length, some 800 yards, indicates that at least two Red battalions are in the position. In addition, the whole or a part of the remaining battalion of the enemy's regiment may be in reserve. Some part of this last battalion, though, is almost certainly engaged in the work of requisitioning and guarding the supplies in Gettysburg, and it will hardly, therefore, be able to take part as a whole in the fight. But whatever the exact hostile dispositions may be, the odds, considering in addition to the above the reported character of many of the Red soldiers, rather

SKETCH NO. 3. Situation At 3³⁰ P. M. June 17.





favor the Blue regiment. With a reasonable prospect of success, the colonel would hardly be justified in permitting the Reds to escape with their booty through his failure to attack. In fact he has found conditions at Gettysburg exactly as expected when he marched from Goldenville.

Deciding to attack, it is necessary next to consider how that attack should be made, whether frontally, or by enveloping the right or the left flank. A purely frontal attack should only be made when the ground greatly favors such, or an envelopment is not practicable, or would require time that cannot be spared. Usually that flank is enveloped which affords the best cover for the attacker. An envelopment of the hostile left, with the main attack moving in the general direction of the railroad, would require an advance over nearly flat and entirely open ground to long ranges. If the main attack moved west to cover behind Oak Ridge, either a portion of the enemy's trenches beyond the Blue left would not be engaged, or the regiment would be attacking on a dangerously broad front. In the first case an opportunity would be offered the enemy to come out of his trenches and attack the exposed Blue left; and in the second case, to attack and defeat the frontal or holding attack before the main attack was ready to strike. A further disadvantage of the attack by way of Oak Ridge lies in the close timber about knoll 582. Such timber, with heavy undergrowth to break up the attacker's formations and make all command and coordination extremely difficult, is a very positive disadvantage thereto. If the timber, on the other hand, were free from undergrowth and open in character, the cover afforded by it would be an equally positive advantage. In considering these disadvantages of an envelopment to the west the colonel is simply running over again the reasons that caused him at Goldenville to abandon the idea of a march along Oak Ridge. An envelopment of the hostile right is favored by considerable cover in front of that flank, and very much also by the low elevations parallel to the enemy's trenches, which furnish suitable intermediary objectives for advancing groups, on which to rebuild the firing lines. The colonel decides to envelop the hostile right.

He will assign the battalion in advance guard to the secondary or frontal attack in order to get strong firing lines promptly into position, under whose cover the deployment of the main attack can be made without fear of hostile interference. And since this holding attack by the advance guard is to be largely by fire, and only to be pushed home when the enemy is about to break from the pressure on his flank, a very broad frontage will be assigned it. A convenient line to separate the objectives of the two attacks is furnished by the Carlisle Road. The 1st Battalion will be assigned the hostile trenches west thereof. The 2d Battalion will be sent east of Barlow Knoll to attack the short front between the Carlisle and Harrisburg roads and to make the envelopment east of that objective. The 3d Battalion and Machine Guns will at first follow the 2d Battalion to be thrown in later as the progress of the action makes expedient. The 3d Battalion will be used either to prolong the enveloping attack, or to push the attack forward where hostile weakness has developed, and the machine guns at the decisive moment to bring an intense fire upon that portion of the hostile lines where seems to be the best chance of penetrating.

His Orders and Arrangements

3:45 p. m.

At 3:45 p. m., the colonel issued verbal orders to the 3 majors, C. O. Machine Gun Co., and staff, on Barlow knoll, as follows:

The enemy is in an intrenched position on the low ridge 500 yards south of the Almshouse, extending from the Harrisburg Road to a point about half a mile west thereof.

B Company is deployed across the Carlisle Road on the Almshouse Ridge. It has two squads south of Stevens Run covering our left flank, and two squads near the Mummasburg Road on Oak Ridge covering our right flank.

The Regiment will attack, enveloping the hostile right. March conditions cease.

The 1st Battalion will attack the hostile trenches from the Carlisle Road, inclusive, to the west. The strong patrols of B Company will be left on the duty of flank protection.

The 2d Battalion will proceed across country to the cover of Rock Creek, and thence south by this knoll (Barlow) to the Harrisburg Road. It will then attack the hostile trenches from the Carlisle Road, exclusive, to the east, and will envelop the enemy's right.

The 3d Battalion and Machine Guns, in reserve, will follow the 2d Battalion to cover east of this (Barlow) knoll.

No advance will be made from the 522—Almshouse ridge until ordered by me.

Ambulances and combat wagons will assemble at Boyd S. H.

The Band is at the disposal of the Surgeon.

Messages to this point, with which all battalions will maintain semaphore connection.

At regimental headquarters, the horses were held north of Barlow Knoll by orderlies not otherwise engaged. The colonel, lieutenant colonel, adjutant and sergeant major were on the knoll. The sergeant major was in immediate charge of the details of communication. He had stationed one orderly to watch each battalion, keep track of its progress, and transmit signal and semaphore messages. Two other orderlies, dismounted, were near at hand to carry written messages, and two were mounted just north of the hill for the transmission of any such where mounted delivery was practicable.

The combat wagons were parked by a supply sergeant off the road with teamsters alert on the wagons and ready to move in either direction at a moment's notice.

Actions and Orders, 1st Battalion

The colonel having completed his order, Major B moved rapidly to the center of his three companies, on the Carlisle Road midway between Barlow and knoll 521, assembled the captains, and directed:

The enemy occupies an intrenched position about three-quarters of a mile south of this point.

The regiment attacks. B Company has a strong patrol near the Mumasburg Road, south of that wooded knoll (pointing to 642).

This Battalion will advance to attack.

D Company will at once gain 500 yards to the west and will then follow the right of the firing line at 400 yards in support.

C and A Companies will gain ground to the west until C Co. is near the rail fence (pointing to the one 200 yards west of the road). They will then advance, C Company, the base company, moving up the little draw just east of the fence until I signal "Halt".

The major sent the sergeant major to conduct the battalion ammunition wagons to Boyd S. H.

When A Company, on the left of C, was about 100 yards north of knoll 522, the major signalled to both companies, *Halt, lie down, Captains join me*, this last addressed to those of Companies C, A, and B. These three officers, the major, and his adjutant moved cautiously up to 522 and lay

down behind its crest. There the major pointed out the indications of hostile trenches less than 700 yards away. (The enemy had cut the orchard between knolls 522 and 527, and burned the farm buildings thereat.) The Major ordered:

The 2d Battalion attacks the trenches east of the Carlisle Road.

This Battalion will attack the hostile trenches from the Carlisle Road, inclusive, to the west.

Companies C, A, and B, in the order named from right to left, will each deploy upon a front of 125 yards, with 25 yards interval between companies, C Company's right at first near that fence corner (pointing to the one 200 yards west of knoll 522). Objectives: B Company, the hostile trench from the Carlisle Road, inclusive, to the fence corner about 150 yards west thereof (pointing to the one at G in Gettysburg); A Company, from that fence corner to include the Mummasburg Road about 7 fingers to the west; C Company, remainder of the hostile trenches.

Deploy and signal me when you are ready to fire but await my order to commence.

Make no advance beyond this crest until ordered by me.

B Company will leave its 4 squads out to cover our flanks.

D Company is following the right of the firing line in support.

I will be behind the center of the firing line.

Actions and Orders, Company A

The major having finished, the captain of A Company signalled his lieutenants and sergeants to come up to the crest. The company was lying down in line of platoon columns about 100 yards to the north. The captain moved to the center of the front assigned his company for deployment, lay down so that he could just see over the crest, with his four platoon commanders, first sergeant, and remaining duty sergeants lying close to him on both sides. All so equipped were using field glasses. The captain ordered:

The Regiment attacks.

Catch the Red college building at 12:00 o'clock, then the hostile trench whose right is at 7:00 o'clock therefrom.

Our objective is that trench. Its total length is about 7 fingers.

The First and Second Platoons will each cover by their fire the entire western half of the company's objective; and the Third and Fourth Platoons will each cover the entire eastern half of that objective.

Give me the range.

Each man estimated the range. The 1st Sergeant dropped back of the crest, and with the help of the musicians, quickly took it with the Weldon range finder to the fence corner near G in Gettysburg. Assisted by the mean of the

ranges given by the estimators, having rejected any wild one in getting this, and by the finding of the Weldon, the captain decided upon the range as 600 yards. Deducting 50 yards so as to bring the sheaf of fire from the line of aiming points into the trenches, he announced:

Aiming point, crest line just above trenches. Range, 550.

The captain signalled to the company: *As skirmishers, March, and Forward, March*; then *Halt, Lie Down*, when the skirmish line was about twenty yards back of the crest.

The chiefs of platoon caused their squad leaders to crawl up to the crest, pointed out the company's objective to them, and assigned each squad its proportional part, using with them the sight leaf instead of "fingers" in designating the squad targets. Each squad leader then placed himself where the center of his squad was to be and signalled his men to join him by crawling. The squad leader pointed out to his men the company and squad objectives, the aiming point, gave the range, and when certain that every man understood, signalled "ready" to the chief of platoon. These chiefs in turn signalled "ready" to the captain when all corporals of the platoon had so reported. The captain when all four of his platoons had reported signalled "ready" to the major. As soon as ready all men drew back from the crest and hugged the ground. The captain and his chiefs of platoon remained in observation of the foreground while awaiting the major's signal to commence firing.

The deployment of C Company on the right was similar. This company sent four scouts as a combat patrol to work at first to the farmhouse on the Mummasburg Road southwest of 522. That patrol endeavored to keep 3 or 4 hundred yards south of the company, and a little farther than that to the flank, and to maintain touch with the two squads of B Company on the ridge to the west. One man on the right of the company watched this patrol and the patrol kept at least one man always in sight of the company. Reports of the patrol were made by signals, or extremely abbreviated semaphore messages.

B Company on the battalion's left moved back from the crest and closed in to its right. Packs were dropped. The orders issued in this company were similar again to those of A Company, except that, having a shorter objective assigned, the captain ordered each platoon to distribute its fire over the company's whole objective, the idea being of course to maintain a greater density of fire over the section of the objective immediately in front of a rushing platoon.

Before leaving the 1st Battalion, let us go further into the arrangements therein for communication. The agents and means of communication were as follows: Each company had one musician lying near the captain watching battalion headquarters, the other musician similarly watched the four chiefs of platoon. The battalion had one of its two mounted orderlies holding the four horses in the stream line 500 yards north of knoll 522. The adjutant was four or five yards to the right of the major observing the enemy and the three companies of the firing line; the sergeant major, who had returned from conducting the empty combat wagons to Boyd S. H., was about the same distance to the left watching regimental headquarters on Barlow Knoll; and the second orderly from a position behind the major kept track of D Company (in support). All of these agents were alert to transmit, both ways forward and back, signals and semaphore messages, or in case of necessity to make personal delivery.

4:25 p. m. Although every care had been taken in the deployment to keep under cover, the enemy's attention had nevertheless been attracted and he opened fire. By 4:25 p. m. several men in the three companies had been hit and the men generally were becoming rather nervous. To keep his battalion in hand, the major accordingly signalled, *Commence Firing*, without waiting longer for the 2d Battalion's deployment to be completed. The enemy's fire increased rapidly in intensity so that in a few minutes the battalion was engaged in a very hot fire fight. B Company quickly found it necessary to bring some fire on the Red trench east of the Carlisle Road, which formed part of the 2d Battalion's ob-

jective. Its captain did so by signalling to the chief of his left platoon, *Shift 5 fingers, left.*

Actions and Orders, 2d Battalion

Turning now to the 2d Battalion, whose head it will be remembered was near the farm road 650 yards south of Boyd S. H., we find its major rejoining at 3:55 p. m., after having listened to the colonel's attack order. He saw that ammunition had been issued during his absence. The four companies had been drawn up in double column, each column of two companies on the sides of the road. The ammunition wagons then had driven down between the two columns, and the boxes were quickly dumped into the road, and their contents distributed. This issue required about ten minutes. The major ordered the empty wagons to proceed to Boyd S. H. as soon as the 2d and 3d Battalions had passed to the south. He then conducted the battalion in column of squads across country slightly south of east to the steep banks bordering Rock Creek and along these to the south. Nearing Rock Creek the major directed the leading company to double time a squad ahead to gain a couple of hundred yards on the battalion as its point, and to send a second squad across Rock Creek to march as a flank patrol east of the fringe of timber. The head of the battalion had arrived between Barlow Knoll and 474W when the heavy fire of the 1st Battalion opened. The major assembled his captains on the southeast nose of Barlow knoll, and at 4:30 p. m. directed:

The right of the Red trenches is about a thousand yards down this road (Harrisburg).

The Regiment is attacking. The 1st Bn. is now engaged on our right.

This Battalion will envelop the enemy's right.

E Company will deploy with its left on this road (Harrisburg), and will at once advance to attack the enemy's trenches between the Harrisburg (inclusive) and Carlisle roads (exclusive).

F Company will deploy with its right on the road, and will advance with E Company.

G and H Companies in support will continue south along Rock Creek at 300 yards.

I will follow F Co.

Actions and Orders, Company E

The captain immediately double timed over to his company and ordered:

The enemy is intrenched about a thousand yards to the southwest. We attack straight down this road. Scouts out.

He signalled: *As skirmishers, Guide Left*. The 2d lieutenant and one scout from each squad double timed, deployed at about 7 paces interval, for the Almshouse Ridge. The company followed in quick time at 200 yards. That ridge gained the scouts lay down. The lieutenant dropped back to meet the captain, and reported that two orchards west and southwest of the Almshouse were down, that the enemy's trenches were in full view only five or six hundred yards away, and that the Almshouse ridge would make a suitable position for opening fire. The preliminary orders and arrangements for firing were similar in E Company to those of A Company previously described, although executed with much less deliberation than in the case of the latter.

4:45 p. m.

At 4:45 p. m. E Company opened fire. F Company, east of the Harrisburg Road, with the exception of a few men on the extreme right, could not see the hostile trenches, and except the right squad did not open fire with E Company.

At this time G and H Companies were in column of twos in the timber along Rock Creek, with the head of G Company at the fence corner somewhat north of east of the Almshouse. A patrol of four men from G Company was at the mouth of Stevens Run. The E Company flanking patrol of one squad was on the nose 400 yards east of G Company.

Progress of the Attack 4:45 to 5:15 p. m.

4:45 p. m.

At 4:45 p. m., the 3d Battalion and the Machine Gun Company were east of Barlow Knoll. The colonel verbally directed the captain of that company:

Put your guns on the Almshouse Ridge between the 1st and 2d Battalions and open fire. Target: The Red trenches east of the Carlisle Road.

The colonel had the 2d Battalion signalled to advance. Its major signalled *Forward* to F Company on the left of the firing line. That company moved steadily forward without halting until it reached the nose south of the Almshouse. The Reds met this movement by deploying a company east of the Harrisburg Road in prolongation of their trenches west thereof. And F Company and this new Red company

immediately engaged in a hot fire fight with less than four hundred yards separating their men. As soon as the Reds prolonged their firing line in this manner, the major semaphored the leading company of his support, which had moved forward with F Company, "R L F" (customary abbreviation in the battalion for "reinforce left of F Company"). Thereupon G Company deployed from the timber along Rock Creek, moved forward until its skirmishers prolonged the line of F Company to the eastward; and joined that company in its fire fight with the Red company east of the Harrisburg Road. E Company on the right of F advanced by platoon rushes to the orchard west of the road.

The machine guns opened fire from the knoll northwest of the Almshouse at 5:00 p. m. Regimental headquarters, after ordering the 3d Battalion to advance along Rock Creek to Stevens Run, moved forward to the crest north of the Almshouse.

5:00 p. m.

At 5:10 p. m., Red skirmish lines appeared north of the eastern exit of Gettysburg. F and G Companies by this time had gained a decided fire superiority over their Red opponents, and were beginning to gain ground by platoon rushes from the left. The fire, however, of the fresh hostile skirmishers north of Stevens Run and of several machine guns which opened from the same direction with them quickly stopped the Blue advance; and the two companies were soon suffering severely notwithstanding the active support of the Blue machine guns. Immediately upon the appearance of these Red reinforcements, the colonel sent verbal orders by his adjutant, accompanied by one orderly, to the 3d Battalion:

5:10 p. m.

Attack eastern exit Gettysburg at once.

Actions and Orders, 3d Battalion

In compliance with this order, the major of the 3d Battalion put the battalion in march to the south, and, at 5:17 p. m., standing fifty yards south of the mouth of Stevens Run, directed his leading captain:

5:17 p. m.

We attack the eastern exit of Gettysburg.

Deploy, guide left, and advance at once with your left marching

on that white house (pointing to the nearest one of Gettysburg on the York Turnpike).

K Company will deploy on your left.

I'll support you with the remaining companies.

When the second company came up, the Major directed its captain :

We are attacking the eastern exit of Gettysburg.

Deploy, guide right, and prolong the left of I Company, which is the base company.

The remaining companies will follow in support.

I'll follow the firing line at 50 yards.

As the third and fourth companies came up, he directed each captain :

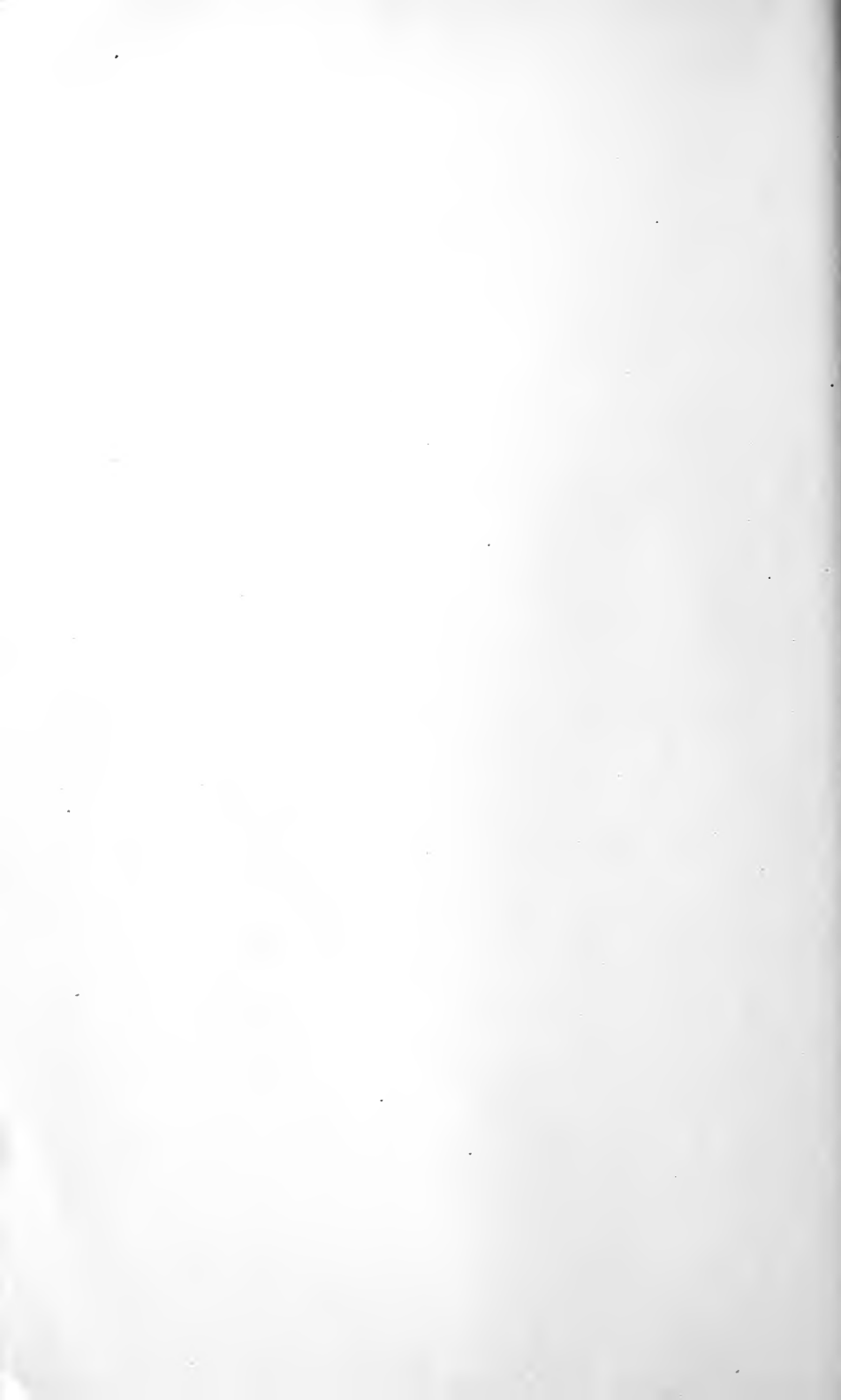
I and K Companies are attacking the eastern exit of Gettysburg. L and M, M on the left, will follow in support behind the left of K at 200 yards. M Company will send a platoon at once to Benner's Hill to protect our left.

I and K Companies advanced through the flanking patrol of B Company, and opened fire. To oppose them the enemy very soon deployed nearly an equal number of rifles. Each company (I and K) took roughly half of the front opposing them, and the platoons in like manner divided up the company's objective. The major almost immediately prolonged the firing line to the left by sending forward L Company.

By this advance of the 3d Battalion the pressure on the 2d Battalion was relieved. The major of the 2d Battalion deployed his last company over the front of the whole battalion and sent it into the firing line. The 1st Battalion extended its right also with its last company. The fire of all the companies and of the machine guns rose rapidly in intensity. The hostile fire on the other hand everywhere immediately lost in effectiveness. Between the Carlisle Road and Stevens Run it, in fact, grew wild. The 2d Battalion began to gain ground by company rushes from the left. The enemy in front of this battalion left his trenches, and ran to the rear. The colonel signalled "Charge" to all of the battalions, and the musicians throughout the regiment sounded the charge. As the lines rushed forward the enemy everywhere broke except east of Gettysburg, and in the last trenches northwest of Penn College. In these last some

A detailed topographic map of Gettysburg, Pennsylvania, and its surrounding area. The map features contour lines indicating elevation, with labels for 500, 600, and 700 feet. The town of Gettysburg is centrally located, with a grid of streets and buildings. To the north, the town of Manover is visible. To the south, the town of Gettysburg is shown with a large area of trees. The map also shows the Gettysburg Battlefield, with labels for 'Gettysburg Battlefield' and 'Gettysburg Battlefield'. The map is oriented with North at the top.





two hundred men hung on until all of them were captured by the movement westward of portions of the 2d Battalion.

The colonel rushed the machine guns forward to take up the fire pursuit. While these quickly cleared the main north and south streets of Gettysburg, they were not able to do much damage elsewhere because of the cover afforded the enemy by the town's buildings.

The Pursuit

When it became evident at regimental headquarters that the end of the action was approaching, the horses were brought forward. The colonel and staff mounted and galloped up to the Red trenches on the Carlisle Road. There he found the 1st Battalion less disorganized than the 2d—the 3d was still engaged east of the town. The colonel therefore hastened to the major of the 1st Battalion, whose companies were assembling near the hostile trenches on the Mummasburg Road, and at 5:55 p. m. directed:

5:55 p. m.

The 3d Battalion is still engaged east of town.

Take up the pursuit at once through Gettysburg with your battalion and the machine gun company.

The colonel then had the adjutant send a mounted orderly with orders for the field train, still back at Texas, to come up to Gettysburg, and for the combat wagons to pick up the packs of B Company and also come on to Gettysburg.

The major, 1st Battalion, assembled his captains at a double time, without interrupting the reorganization of the four companies, and, at 6:00 p. m., ordered:

6:00 p. m.

The 3d Bn. is still engaged with hostile forces east of Gettysburg.

This Battalion and the machine guns pursue at once.

Co. D will proceed by the Mummasburg Road and the first street east of Penn College straight south through Gettysburg.

Co. B, to the Carlisle Road and thence due south.

Both companies will move rapidly.

A and B Companies and the Machine Guns, in the order named, will follow D Company at 400 yards.

Leave small details in charge of your prisoners, and to search for wounded.

I will be at the head of A Company.

The major sent the battalion adjutant to the captain of the machine gun company to notify him that the colonel

had attached his command to the 1st Battalion for the pursuit, and to direct him to follow B Company.

Each leading company (D and B) moved out at once, double timing a platoon 200 yards in advance. Each of these platoons hurried a squad 150 yards to its front. Both D and B Companies were throughout in double column of files, one column on each side of the street. At the first cross street to the east, B Company, on the left, sent a platoon as left flank guard to the next north and south street. D Company similarly sent a squad to the right.

In passing through the town the 1st Battalion picked up about 50 Reds who were turned over to a couple of squads of the last company to be assembled at the central square.

As soon as the advanced groups of D and B Companies emerged from the town, they received a hot fire from the National Cemetery. These companies deployed immediately across the Taneytown and the Baltimore turnpikes.

The major turned the main body west by the cross street just north of the race track, and southwest by the country road. Near the group of houses opposite the southern part of the race track, the major, halting the battalion, took his three captains to the nose a hundred yards still farther to the south, and directed:

The machine guns will take station in this vicinity and fire on the cemetery.

Cos. A and B will deploy, B Company on the right, A Company's left west of this point, and will then advance. B Company will direct its left upon that yellow house (pointing to the H. Bishop farmhouse). B Company will send a strong patrol to Seminary Ridge.

I'll follow the left of A Company.

Under the fire of the machine guns, and upon the advance of A and B companies, and of a portion of the 3d Battalion across country east of Gettysburg, the hostile resistance quickly broken down. By 7:00 o'clock, Cemetery Hill was in possession of the 1st Battalion which was pursuing by fire down the Taneytown Road small rapidly retreating groups of the enemy.

All of the battalions sent parties to search the ground over which they had attacked for wounded. By early eve-

ning, their reports indicated that there had been some 121 casualties distributed about as follows:

1st Bn.	1 officer, 6 men killed, 30 wounded,
2d Bn.	2 officers, 9 men killed, 45 wounded,
3d Bn.	1 officer, 5 men killed, 20 wounded,
M. G. Co.	2 wounded.

About 70 Red wounded were found.

Comment

With reference to the whole conduct of the attack, certain things are to be noted.

While prompt action was of great importance in preventing the escape of the enemy with his booty, nevertheless the colonel did not throw his regiment into the fight until the advance guard's reconnaissance had made it pretty certain just where the hostile trenches were located and what was their extent. The long range of modern rifles renders it exceedingly difficult to change the direction of attack of troops once committed to action. Unless it is known beforehand where the enemy is, troops can only by chance advance in the direction for striking him. A command that attacks with an incorrect direction line will at best simply strike a blow in the air and at worst will be annihilated by flanking or enfilade fire from the enemy's real position. Moreover, unless the enemy has been rather definitely located, the attack can hardly be made systematically and upon a well considered plan, but the troops will have to be sent in piece-meal simply to meet the exigencies of the engagement as they arise. Such a haphazard attack even if its direction lines happen to be right will have little chance of success unless made with an overwhelming superiority in numbers. The colonel, having these principles in mind, curbed therefore his impatient desire to get the action started, and waited quietly for more than an hour while his advance guard was clearing up the situation.

Such quiet waiting can of course easily be carried to an excess. Probably no commander ever feels certain that he has learned the exact situation on the other side. The determination, consequently, of the proper moment for con-

cluding that no more information can be awaited, but that from what has already been obtained a certain hostile situation must be assumed to exist, and an attack based upon that assumption be ordered, calls ordinarily for the exercise of the nicest judgment.

It may be asked why the colonel did not take advantage of this long period of waiting for information to bring up the 2d and 3d Battalions from their halting place south of Boyd S. H. into assembly positions rather close behind the advance guard. The answer, of course, is that the colonel had not yet made up his mind just how he would attack. By leaving the bulk of the regiment, until this decision was made, as far back as possible without dangerously isolating the advance guard, the movement then of these battalions to the right or left for deployment could be better covered from hostile view, and the attacking battalions could be directed from a greater distance exactly towards their proper objectives, and so have all of their movements in deployment partake less of the nature and dangers of flank marches.

The question of when to drop the packs, it is believed will usually be a difficult one to answer. If as soon as an advance guard encounters a delaying force of the enemy, it immediately drops the packs, then, when the enemy is driven away, either much time is lost in going back for them, or they are left miles to the rear, and are perhaps not seen again for many days, if at all. On the other hand it is a great advantage in a prolonged engagement to relieve the men of this burden. In Colonel A's engagement the fight promised to be serious enough to make it expedient to take them off, and there was likely to be no difficulty in getting them up later since he had no idea of a prolonged pursuit south of Gettysburg. But the colonel, and not one of his subordinates, was the proper one to make the decision.

The method employed by the advance guard in its preliminary reconnaissance was the one that will ordinarily best serve. A detachment of considerable size must be deployed upon a broad front and sent straight towards where the enemy's main strength is thought to be to drive in the groups by which he will screen his dispositions, and so compel him to disclose his main position. In the case in ques-

tion, a single company sufficed to lay bare the front of the enemy's position. It might have been necessary to deploy the greater part of the advance guard, had the hostile covering detachments proved of greater strength, and Major B was prepared, and had grouped his other companies so as to be able, to meet this necessity. While clearing up the front in this manner, strong patrols must be sent at the same time to the right and to the left to determine the limits of the hostile position. Usually the general terrain and the previous idea of the strength of the opposing force will enable a guess to be made as to the location of the flanks. The patrols testing its accuracy are assigned routes, which, if the guess is correct, will take them by the enemy. If the guess has not been correct, then other points still farther to the flank must be promptly tested. The patrols should be strong so as to drive in the corresponding security detachments of the other side and to be able to detach for close examination of particular points. The two flanking patrols of this problem met exactly similar bodies and were unable to gain much ground. But they nevertheless got far enough to locate very accurately the extremities of the Red line. Such reconnoitering groups must work boldly and rapidly, giving but little thought to their own safety, or, the information they obtain, if any at all is obtained, will come in to headquarters too late to be of much value.

Next should be noted the care taken by the colonel to secure a united attack by ordering that no advance be made from the 522 ridge until further orders. Had the 1st Battalion attempted to move forward from that ridge before the 2d Battalion was ready, the 1st would probably at best have suffered severely, or might even have been defeated, by the concentration upon it over perfectly open ground of the entire hostile fire. This coordination of the two attacks might also have been obtained by ordering the 1st Battalion to "support" the attack of the 2d, which would have made the 2d Battalion the guide of the movement. Such an order would however have required the 1st Battalion to divert agents of communication from other duties to keep track of the progress of the 2d Battalion, while the regimental head-

quarters was already most conveniently located and had the proper personnel for the performance of this duty.

The regiment's initial deployment was upon a front of slightly over a thousand yards. This is not excessive for a regiment (at war strength be it remembered) acting alone, because an affair between regiments will last a comparatively short time, and there will consequently not be the same need for relatively large supports and reserves to replace losses and push the firing line forward that will be found in an engagement between larger bodies. After the attacking lines had compelled the enemy to throw in his reserves, and make his dispositions and intentions reasonably clear, there was no hesitation on the colonel's part to put in all of his men, and to meet the hostile extension by a very considerable extension of his own lines. He did not permit himself to be prevented from so using all of his men by the possibility that the enemy still had other reserves, or that perhaps other hostile forces would soon be coming in to help the one Red regiment reported. Such risk had to be run. War cannot successfully be made without taking chances. Judgment is displayed by taking only those in which the risk is reasonable or necessary.

As is usually the case in an enveloping attack the enemy finally presented a salient in his lines near the Harrisburg Road, which broke under the concentrated fire the Blues were thereby enabled to bring upon it.

Everyone concerned from a captain of an outside company through the majors to the colonel kept the matter of flank protection constantly in mind. The regimental commander perhaps need not have said anything in his attack order about it, since the steps already taken by B Company in sending out two strong patrols incidentally could amply provide for security. But those patrols went out primarily for information. Having obtained that, and the company being assigned another task with no mention of the duty of security therein, it was possible these patrols might be drawn in or fail to realize that their mission had changed from reconnaissance to security. The matter was of too great importance to run any chance of a misunderstanding, and accordingly was provided for in the regimental order.

Means of communication and connection throughout the command from the squads to the regimental headquarters were systematically and carefully provided in advance of the necessity for their use. For such purposes agents of communication must be trained to specific duties, unless detachments are to be lost sight of, and a failure of communication to result. A careful organization of the whole system of information and communication both in the battalion and in the regiment must be provided by those directly responsible if these organizations are to be combined into a smoothly working team. For distances up to 1200 yards, and even with favorable conditions of light up to a mile, the semaphore flag (which can be used prone, or kneeling, as well as standing) will quite frequently be of the utmost value. But in using it, as well as in using any other system of signalling, the messages must be highly condensed and abbreviated. And the agents must not simply have a fair knowledge of their systems but must be *expert*. When using the semaphore it must also be remembered that no one system is ordinarily sufficient to meet all demands for communication. It is frequently advisable, even with a most efficient system of signalling in existence, to make personal delivery of certain messages.

Whenever practicable, both in the battalion and in the companies, there was careful designation of objectives and targets to secure proper distribution and accuracy of fire. These preliminary measures were hurried or omitted only when the exigencies of immediate action made to do so imperatively necessary. Time spent in such measures for the adjustment of fire, unless carried to an excess, is ordinarily well expended.

The machine guns were kept at first in reserve, to go into action only when the fight had progressed far enough to make rather certain where the attack had the best chance of getting home. Then the colonel put in these guns to obtain their powerful assistance in beating down the hostile fire over the limited front east of the Carlisle Road.

Finally, it is well to note that the colonel after the attack order, remained quietly in one spot until the action was nearly over, issuing meantime comparatively few or-

ders. After starting his battalions towards the enemy by that initial order he had practically nothing to do but to watch carefully the progress of the action and determine therefrom just when and where to put in his reserves. Yet this decision was of such moment that it justified the absorption of his entire thought. He permitted his subordinates to make their deployments and dispositions, with system and deliberation, and without hurrying by or interference from regimental headquarters. And in all of his orders he assigned tasks only, carefully abstaining from any directions as to the manner of execution, which last must be left to the discretion of a competent subordinate.

Sanitary Arrangements

The sanitary personnel with a regiment consists of 4 officers, 4 non-commissioned officers, and 20 privates 1st class or privates. Before the command entrained at Carlisle the regimental surgeon, by direction of the colonel, distributed the sanitary personnel as follows: With each battalion, 1 officer, 1 N. C. O., 5 privates, the latter including the officer's orderly. He himself remained with the commanding officer and the rest of the personnel or aid station party followed in the mixed section.

When the regiment detrained this formation was adhered to and on the march each battalion was followed by its detachment.

The aid station party with the 3 ambulances tailed the regiment.

As soon as the order for the attack on the Red position was given the Colonel placed the band at the disposal of the regimental surgeon. Each battalion detachment followed its battalion into the engagement, keeping as close to the firing line as the terrain permitted. During the fighting all the wounded who could be reached were given first aid treatment, and if possible they were removed to some protected spot until further evacuation could be safely carried out.

The Aid Station party and the band remained in the ravine in front of Barlow Knoll, and under the direction

of the regimental surgeon established an aid station at that point when necessary.

By 5:30 p. m. this aid station had been abandoned as the line advanced and was now established in the ravine at the County Almshouse. A few slightly wounded had been received at the first station, and when the advance took place a non-commissioned officer of the band and a sanitary private were left in charge of them.

At the second station the terrain was favorable to a partial collection of the wounded, and litter squads composed of bandsmen were sent out to the several battalions to bring in as many men as possible.

As soon as the enemy was driven from his position and protection from rifle fire was no longer a factor, the regimental surgeon moved the aid station to the County Almshouse and sent his orderly to Boyd S. H. to direct that the ambulances repair immediately to the battlefield. The sanitary personnel of the 1st Battalion accompanied it in the pursuit and cared for the wounded who fell during the second engagement.

The sanitary personnel and the band with the assistance of the details from the combatant troops and the ambulances, collected the wounded into the regimental aid station. At that time it was found that there were: 10 non-transportable, very severe cases; 39 moderately severe, but able to stand transportation; 48 slightly wounded, 13 of whom required very little attention and could immediately rejoin their companies. In addition to these, there were 67 severely wounded Reds.

The regimental surgeon requested that rail transportation be sent from Carlisle to Gettysburg on the morning of June 18th, to remove 39 severely and 35 slightly wounded Blues, and 54 severely wounded Reds. This was approved by the colonel and forwarded to division headquarters. Pursuant to this request a train consisting of 4 baggage cars and one ordinary passenger coach arrived at 7:00 a. m. and by 9:00 a. m. with the use of the ambulances and vehicles, the wounded capable of being transported had been loaded on the train, which immediately started on its return journey to Carlisle.

The 10 Blue and 13 Red non-transportable wounded were left in the Almshouse at which point a small temporary hospital was established.

Comment

The distribution of the sanitary personnel with a regiment on the march and when preparing for an attack as outlined above is solely to provide for efficient assistance for all parts of the command without delay or confusion. By this arrangement a battalion ordered to some duty away from the regiment will always have its proper quota of sanitary assistance.

Attention is called to the fact, as emphasized in this problem, that the regimental aid station is nothing more than a collecting point for the wounded. No elaborate treatment is contemplated and the administering of first aid is all that can be expected. This station is established whenever there is a sufficient number of wounded in a given area, who can be collected in one protected spot, without undue exposure of the sanitary troops. This point is not fixed and there may be several such locations during an engagement as shown above. As the line advances the station advances, after collecting all the wounded in the first area. A point protected from direct rifle fire is selected as close to the line as possible and collection of the wounded into this station is begun at once. A detail sufficiently large to administer to the wants of the wounded is left at each location, when an advance of the station is ordered.

A pursuit by a force of any size should be provided with some sanitary personnel. Casualties are very apt to occur and assistance would be needed at once, therefore the personnel attached to the 1st Battalion accompanied it in the pursuit, leaving the remainder of the detachment to collect and care for the wounded of the main engagement.

After wounded are collected and dressed, immediate efforts should be made to remove them to the rear. It might be said that the facilities presented in the town of Gettysburg for the care of the small number of wounded were ample, and no evacuation would be necessary. Though this is in part true, still several factors should be given more

weight in considering this matter. In the first place the enemy might be reinforced, and in turn compel the evacuation of the town; causing all of these wounded to fall into their hands. Secondly, the problem of supply for even a small command requires careful consideration; and if men are present who cannot be used on the firing line for some time, they should be removed as extra mouths to be fed without commensurate services returned.

The casualties in engagements are, unless more detailed information is provided, divided into their categories by the following percentages, which have been worked out according to the detailed reports of modern campaigns:

Killed	20%
Severely wounded—	
Non-transportable	8%
Transportable, sitting	20%
Transportable, recumbent	12%
Slightly wounded—	
Able to walk to dressing station or field hospital	28%
Able to walk to advance depot	12%

It should be noted that the Red wounded are all classed as severe cases. This conclusion is arrived at by assuming that the slightly wounded have retreated with their own troops.

A HALT FOR THE NIGHT

Arrangements and Orders, Regimental Headquarters

6:15 p. m.

At 6:15 p. m., the colonel directed the major, 2d Battalion:

Leave one company to collect all the prisoners and confine them for the night in Penn College. Also leave detachments to search for your wounded. March the remainder of your battalion to the Taneytown Road at the southern exit of Gettysburg.

The colonel then sent the adjutant to direct the 3d Battalion, whose firing by this time had died away, to proceed to the Baltimore Turnpike at the southern exit of Gettysburg. The colonel, himself, went ahead in the direction of the steady firing to be heard south of town; and from its outskirts watched the successful attack of the 1st Battalion. At its conclusion, he directed the battalion commander:

Do not pursue farther. We will camp for the night east of the racetrack—the 3 battalions in the usual order from north to south. Which of your companies can best go on outpost?

A Company, then, will take station in the vicinity of Cemetery Hill, and will secure the command from the Emmitsburg Road to the Baltimore Turnpike, both inclusive. Transmit this order to its captain.

The adjutant will mark the company streets.

Reserve rations tonight. The wagons will not be up for some hours. The combat wagons have been ordered to pick up B Company's packs.

The colonel then sent the adjutant to the machine gun company, with orders for that organization to proceed to the race track. The colonel personally rode to the other two battalions and directed their majors:

The enemy is retreating to the south in considerable disorder.

We will camp east of the race track—battalions in the usual order from north to south. The adjutant is posting the company flags.

A Company takes station on Cemetery Hill to secure the command from the Emmitsburg road to the Baltimore turnpike.

Reserve rations tonight. The wagons will not be up for some hours. Your combat wagons have been ordered to bring up the packs

Go on to the camp ground.

The colonel directed the major of the 3d Battalion to have his adjutant report for duty with a reconnoitering patrol. When the adjutant reported, the colonel, at 7:30 p. m., directed:

The enemy has retired by the Taneytown Road in considerable confusion.

We are going into camp south of Gettysburg.

I want you to select four orderlies, follow the enemy, and remain in contact with him. Let me know where he camps tonight.

While camp was being made, the colonel directed the guard company to station a cossack post on knoll 574 of Seminary Ridge west of camp, a sentry south of camp and one at the picket line north of camp, and also to establish a signal station on the highest building immediately east of camp for observation of the surrounding country and for communication with the outpost.

The ammunition supply was low, and very unequally distributed. There seemed to be an average of about 40 rounds per man, and some 2000 rounds in the Machine Gun Company. The ordnance officer was directed to redistribute so as to equalize throughout the regiment.

Two hundred and fifty Red unwounded prisoners had been captured, in addition to the 67 severely wounded.

Five days' rations were still stored at Table Rock Station under a small guard. During the night, the quartermaster hired seven civilian teams, which he sent at day-break with the empty ration wagons to bring these rations from Table Rock to Gettysburg.

The railroad officials reported the track intact to the north.

The colonel forwarded the following telegraphic report:

1st Inf., Gettysburg,
17 June, 9:20 p. m.

Chief Staff,
Carlisle.

Found 1st Red Inf. in position north of Gettysburg. Attacked and defeated it. Enemy retired in disorder to south. Am now camped southern outskirts Gettysburg. Had one hundred twenty casualties. Captured two hundred fifty unwounded Reds and sixty seven severely wounded. Have average only forty rounds ammunition. Request three hundred thousand rounds ammunition be shipped Gettysburg by rail tonight. Also cars for evacuation Red prisoners and ninety-three severely and thirty-five slightly wounded.

A,
Colonel.

Outpost Arrangements and Orders

The colonel's order to establish an outpost having been transmitted to the captain of A Company, the latter marched that organization to the orchard about 300 yards south of Cemetery Hill, where he halted the company, and assembling his officers and non-commissioned officers, directed:

The enemy is retreating rapidly to the south.

Our regiment camps east of the race track.

This company will take station in this vicinity to furnish the outpost.

Corporal L, take your squad, as outguard No. 1, down the road to the right (Emmitsburg) about half a mile to the crossing of that road and the railroad.

Sergeant M, take the 2d and 3d squads, as outguard No. 2, to the roadfork about three quarters of a mile south on the Taneytown Road.

Corporal N, station your squad, as outguard No. 3, on the Baltimore Turnpike north of the stream which runs just north of those hills (pointing to Powers and McAllister Hills).

All outguards will get signal communication with the company station which will be established on the house just south of us.

Lieut. B will take charge of the company. Explain the situation to the men. Put an observation post at the house south of us. Establish communication with the outguards and with the Regiment's camp.

Get water from the farmhouse (pointing to one just to the south). Put a sentry over the well. Collect rations and put men to work getting supper. Reserve rations tonight. Arrange to use the farmhouse range for cooking. Our wagons and packs will not be up for some hours. Check up our ammunition.

Lieut. C, prepare an outpost sketch. I will locate the troops thereon when I return from inspecting the outguards.

Corporal P, you, and L, M and N will come with me.

I am going to visit the outguards from the right to the left.

The captain first looked at the ground nearby with a view to defense, and determined to occupy the southern edge of the orchard on knoll 606 in case of a hostile advance from the south or southwest, and to move back to Cemetery Hill if the enemy should advance along the Baltimore Turnpike.

He then started with Corporal P and his men across country to the southwest. He found Corporal L, in charge of outguard No. 1, had posted his squad east of the road just south of the southernmost of the N. Codori houses, with one sentry 25 yards down the road. The corporal intended to cut wire to barricade the road just beyond the sentry. Two of his men had collected the rations and were arranging to cook supper in one of the farmhouses. One

man was at the northernmost house to get semaphore connection with the company. The captain notified Corporal L that he need do no patrolling at night except to investigate something suspicious.

From No. 1 outguard, the captain and his patrol proceeded to No. 2 by the railroad track, southeast to the unimproved road, and thence along it between knolls 566 and 592 to the 545 roadfork. The main body of Sergeant M's picket was bivouacking in the southern edge of the orchard north of the roadfork. A cossack post was on knoll 592 with its sentry up a tree in observation of the Taneytown Road. At dark the cossack post was to be drawn in to the picket. One sentry was posted at the picket. The two roads were barricaded about 25 yards out. After dark a sentry was to be posted near each barricade. As in the first outguard, the rations had been combined and supper was being prepared in the farmhouse north of the orchard. One signaller at that house had made semaphore connection with the company. The captain directed the sergeant to send a patrol of 3 men every hour one mile to the south, and upon a hostile advance in any strength greater than a reconnoitering patrol to fall back promptly until abreast of the company on the Taneytown Road.

The captain went to No. 3 outguard by the road to the east and then north between Powers and McAllister hills. The outguard was at the southern house with a sentry posted, one signaller on the northern house in communication with the company, and two men in the last named house getting the combined supper. The captain directed that the stream crossing be barricaded, and, in case of a hostile advance, that the outguard retire along the Baltimore Turnpike, delaying the enemy as much as possible. He informed the corporal that hourly patrols would be sent from the company by the route the captain had come, and directed the corporal to require each patrol leader to name himself before being allowed to cross the stream.

All three of the outguards had either an electric torch or lanterns with which to signal a hostile advance in strength, and these means were to be used for no other pur-

pose. The farmhouses near each outguard were required kept absolutely dark.

The captain got back to the company about 8:30 p. m. He found that the packs had come up, and a bivouac of the company in one line just north of the two houses had been prepared. Semaphore connection from one of the houses had been made with each outguard, and by flag with a house in Gettysburg on which was the regimental station. The field wagons had not appeared. He ordered a barricade of the road 25 yards to the south, and one sentry squad into the position, just south of the houses, in which, if required, the company would fight at night.

The captain then prepared the following report, the back of which carried Lieutenant C's sketch (No. 5):

8:45 p. m.

Co. A, at farmhouse, 400 yards
south of CEM. HILL,
17 June, 8:45 p. m.

Colonel A:

Company A posted as on sketch. In case hostile advance on TANEY TOWN ROAD will defend this locality, if on BALTIMORE PIKE will defend CEM. HILL. I have only 50 rounds ammunition per man.

A,
Capt.

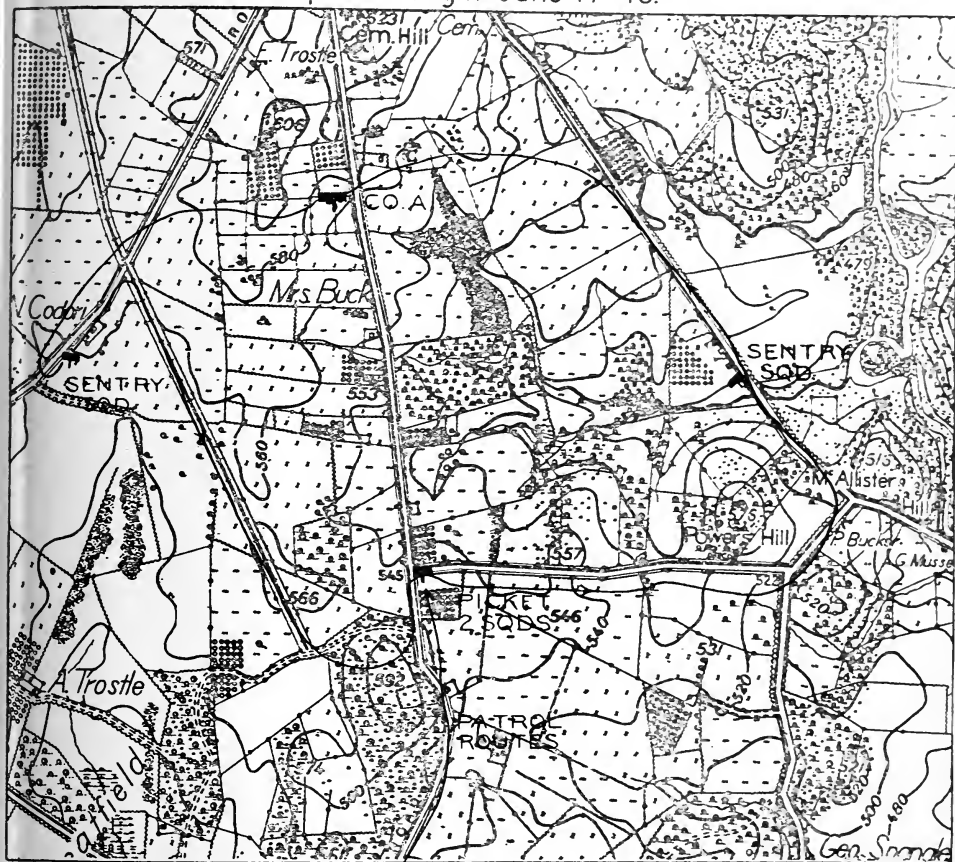
This he sent to regimental headquarters by a messenger, directing the man after delivering the report to wait for the baggage wagon and come back on it.

The baggage and ration wagons joined the company at 9:45, were unloaded, and returned to the regimental camp.

The captain caused patrols of 3 men each to traverse hourly the route followed by him in visiting the outguards. The first three patrols sent out were each guided by one of the men that had gone about with the captain.

With a badly beaten enemy, the regiment can safely trust to the simplest measures for securing its camp. In this case, though, as in all other cases, the prime requisite is that touch shall be maintained with the retreating enemy. Only mounted men can satisfactorily accomplish this mission. That contact the colonel provides for by sending a single small patrol. After that, one company a short distance to the south furnishes ample protection.

SKETCH NO. 5. Outpost. Night June 17-18.





In that company again the most simple measures, consisting only in placing three small detachments on the main roads to the south, are sufficient. Practically the only function of these is to give the company a few minutes to get into position for action. In the absence of mounted men with the outguards, some system of signalling both by day and by night is required in order to give sufficient warning to the company of a hostile advance. Even if mounted men were available, the use of signals would still be the more rapid means.

Under the circumstances, furthermore, no elaborate system of patrolling is called for. But little more is therefore provided than a visiting patrol, which incidentally covers the ground between outguards frequently enough to have a reasonable prospect of discovering in time a hostile movement in strength across country.

Notwithstanding the fact that the regiment has had a considerable initial success, it is still in a dangerous situation through its isolation so near the hostile territory, and before an enemy that has shown himself by no means lacking in energy and aggressiveness. Colonel A may have to fight again tomorrow. If he does, with only 40 rounds of ammunition per man, he will stand little chance of success. To get at least enough ammunition tonight to refill the men's belts and the combat wagons, is therefore the most important matter now requiring the colonel's attention.

THE DEFENSE

Situation

During the night of June 17-18, a train brought sufficient ammunition to refill the belts and ammunition wagons, and empty cars which took the wounded and prisoners back to Carlisle.

On the 18th, the Chief of Staff telegraphed that the remainder of the 1st Brigade would be sent by rail to Gettysburg, where its first train should arrive by 10:00 a. m. on the 19th. Three reports were received from the mounted patrol sent to the south: the first to the effect that the defeated Red regiment camped at Centennial S. H. for the night after the fight; the second that at 4:00 a. m. of the 18th it marched towards Emmitsburg; and the third, received at 10:00 p. m. of the 18th, that two fresh regiments marched from Emmitsburg during the afternoon and camped at Fairplay on the Gettysburg road for the night of June 18-19th.

Regimental Commander's Estimate of the Situation

In solving the new problem so presented to him, Colonel A considered the questions involved about as follows:

He must keep clearly in view his original mission which was to secure the division's concentration at Carlisle, something over 25 miles north of Gettysburg. Any protection of Gettysburg must be made subservient to the primary mission, in which there has yet been nothing in circumstances or orders to produce any radical change. The coming of the remainder of the brigade perhaps indicates some fear on the part of the division commander, that Colonel A will be unable to gain the required time with his regiment alone; and it may indicate also, that he hopes to retain Gettysburg through this added strength.

If the objective of the two new hostile regiments is Gettysburg, and they start from their night's camp at 5:00 o'clock, having about six miles to go, their advance, if uninterrupted, would be in the neighborhood of the Blue outposts,

as now located, between 7:00 and 7:30 a. m. Even on a long June day they are not likely to start before 5:00 o'clock, and, of course, they may start much later.

If the hostile reconnoissance upon gaining contact is promptly carried out, the enemy may have sufficient information to determine upon his method of attack in an hour thereafter. His deployment for attack and advance to decisive ranges will take another hour, and to carry the attack through to a decision would probably take a third hour. So, Colonel A can reasonably expect from one position to hold the two hostile regiments until somewhere near 10:30 a. m. By 10:00 o'clock the 1st section of the Blue reinforcements should reach Gettysburg, and its troops should arrive on the battlefield within 15 or 20 minutes thereafter. The reinforcement then received will probably consist only of one battalion. This will by no means place Colonel A upon equal terms with his adversary, who not only seems to have two regiments now advancing towards Gettysburg, but may be able to reinforce them with some part of the beaten Red regiment. It is doubtful, therefore, whether, if the enemy advances aggressively in the morning, all of the time required for uniting the 1st Brigade can be gained in one position south of Gettysburg.

Colonel A might advance at daybreak with his whole regiment in the direction of the enemy, to fight a series of delaying actions, and so gain the necessary time for uniting the brigade and for saving Gettysburg from another hostile visitation. At first sight the idea appears decidedly good. But the enemy may not march at an early hour in the morning, and his objective may not be Gettysburg at all; he may simply have moved out to cover Emmitsburg. And the possibility of this last being the case, seems greater when it is remembered that the beaten Red regiment was operating in hostile territory without cavalry; and being so hampered in obtaining information, may have no very clear idea of the Blue strength opposed to it. Consequently, if Colonel A remains near Gettysburg he may not have to fight at all, or not until he has been strongly reinforced. An unnecessary fight, particularly against superior numbers, is always to be avoided. While to conduct a series of

delaying actions may on its face seem a simple proposition, yet in fact to carry such through against an enemy of twice his strength is an exceedingly difficult and dangerous operation, in which Colonel A, by the slightest false step or bad luck might easily have his regiment destroyed.

By advancing to meet the enemy the engagement would probably become a *rencontre* in which the hostile superiority in numbers would have every advantage. The ground west of the Round Tops has too much timber to favor delaying actions, in which extended fields of fire are of the utmost value; yet, if the enemy marches promptly in the morning, that is the place where he most likely to be met. Furthermore, by such an advance Colonel A would give up all time for intrenching, and the great advantage for the defense thereof.

It would hardly do to evacuate Gettysburg, moving to the north, only perhaps to learn later that the enemy also was on the defensive, and had no intention of advancing; or, that he advanced so slowly, that the town might well have been saved from his return.

Some consideration is given to the occupation of a flanking position on Round Top, but this is promptly decided against because the position there is not strong to the west and south after the enemy begins to get anywhere near at hand, and because it is doubtful if it could be properly occupied by the regiment in time. The long range fire from a small detachment thereon would cause almost as much delay as would the regiment in a hurriedly occupied position which it did not intend to hold to the end.

In view of all these considerations, it seems much better to make one fight and that, rather close in to Gettysburg, provided a suitable position is there to be found. And in making the fight alone it must not be to a decision. If it becomes apparent that reinforcements are not going to reach him in time, Colonel A, remembering that his primary mission is to cover the division, will withdraw to the north of Gettysburg while still able to do so.

In looking for a position, the colonel notes that everywhere south of the J. Smith farm, within distances that might be considered, there is too much timber to obtain

suitable fields of fire. North, however, of J. Smith's, there is considerable open ground. A fair position is there offered with its left on knoll 606, near the Taneytown Road, and extending nearly due west until the right is on Seminary Ridge. Over parts of this front the field of fire is excellent, over other portions it is rather restricted by the small folds of the earth. But machine guns judiciously posted can flank most of these folds that would otherwise afford shelter for attacking lines until very close in. Seminary Ridge must be included to prevent it from covering the enemy's main attack while he is making his envelopment on the shortest and most natural lines.

By occupying Seminary Ridge the position will become nearly 1700 yards in length, entirely too long for the regiment to hold in a decisive engagement. But in a purely delaying action a position of considerable length is, on the other hand, an advantage since it makes the hostile reconnaissance more difficult, requires movements upon longer lines to prepare envelopments, and renders it much harder to determine what strength is occupying the position. All of these add to the time taken before a decisive attack can be launched.

The position in question covers both the Emmitsburg and the Taneytown roads. To get into Gettysburg the enemy must either attack it or make a very considerable detour with consequent loss of much time.

Behind its front there is considerable cover, both in the shape of folds in the ground and of timber, which will facilitate withdrawal when such becomes necessary. Its flanks will be secured by fairly good fields of fire.

On the whole, it is simply a fair position. Particularly in a delaying action the field of fire should be very extensive. Yet in this one, in several places, it is considerably restricted. But the perfect position probably does not exist. Colonel A simply has to make the best of what he can find; and this position is good enough to warrant its use under the circumstances.

Now as to its occupation, it seems best not to use more than two battalions in the first line, since a strong reserve should be held well back to facilitate withdrawal in case such

becomes necessary. The machine gun company will be split between the two first line battalions, one platoon going with each to compel the early deployment of the enemy, to flank those areas in which the enemy's lines could otherwise work forward under cover to close range, and to bring a concentrated fire to the flanks to hinder envelopment. Unlike the attack, the delaying action makes it expedient to bring the machine guns into action from the very first. Until the enemy shows his hand, the reserve will be held at the race track, whence it can quickly be moved under cover to whichever flank is threatened.

While preparing the main position with two of his battalions, shall he detach the reserve battalion, with the machine guns perhaps, to the south to meet and compel the enemy to make a partial deployment, and so gain time? Doing so would have all of the disadvantages inherent in the occupation of an advanced position. Unless the battalion sent forward were to break off its delaying action at exactly the right moment, it would find itself unable to do so, and in the presence of six times its numbers would, if it rejoined at all, come back a badly beaten command. Then not only would the battalion itself be unfit for much more that day, but the morale of the whole regiment as well would be greatly lowered by this partial defeat. The machine guns also can do better work by getting themselves well into position and intrenched for the main engagement. This does not, of course, mean that Colonel A will fail to cover his working parties by outposts. But it does mean that these outposts will be so weak that they can do little more than send in timely warning of the enemy's approach in strength, and give his patrols some trouble in locating the main position.

By the time Colonel A had come to his decision it was nearly eleven o'clock. Shall he turn out the troops as soon as the order can be issued and have them work the remainder of the night in preparing the position? He decides against the idea. Although at night there is much lost motion he would perhaps have better trenches when the fight begins, but his men instead of being fresh would meet the enemy tomorrow tired and disgusted. And it is men that

will win the fight, not trenches. He decided to start the regiment at 4:00 o'clock, and ordered reveille for 3:00.

Actions and Orders, Regimental Headquarters

The colonel immediately directed the quartermaster to pick up such tools for entrenching as could be found in Gettysburg, and have them at camp by 4:00 a. m.; also to hire wagons for carrying the three days' additional rations still on hand.

The outpost was notified at once of the new enemy.

Then the colonel telegraphed as follows:

1st Inf., Gettysburg,
18 June, 11:00 p. m.

Chief Staff,
Carlisle.

Defeated Red regiment continued retreat to Emmitsburg today. Two fresh hostile regiments marched from Emmitsburg this afternoon, camped at Fairplay. I will intrench a position one mile south of Gettysburg at daybreak. If remainder brigade unable to get up in time shall decline decisive engagement and withdraw north of Gettysburg.

A,
Colonel.

At 3:30 a. m. June 19, the colonel issued verbal orders 3:30 a. m. to the assembled commanders of battalions, machine gun company, and staff, as follows:

The Red regiment we defeated on the 17th has withdrawn in disorder to Emmitsburg. But two fresh hostile regiments marched from Emmitsburg yesterday afternoon, and camped at Fairplay last night.

The remainder of the 1st Brigade is coming to reinforce us. Its leading section should arrive by rail about 10:00 o'clock this morning.

This regiment will prepare a defensive position extending from Seminary Ridge to the southern portion of knoll 606.

The 2d Battalion will prepare from Seminary Ridge, inclusive, to the southern portion of the large orchard 600 yards southwest of the E. Trostle farmhouse, exclusive.

The 3d Battalion, from that orchard, inclusive, to knoll 606, inclusive.

The Machine Gun Company will send a platoon to report to each of these battalions.

Standing trench will be dug.

The 1st Battalion will send Company A to the 2d Battalion to assist in clearing the foreground along Seminary Ridge. I will order B Company to report to the 3d Battalion for similar work as soon as it is relieved from outpost.

The 1st Battalion (less Cos. A and B) will march at 4:00 a. m. to take over the outpost duties, and will secure the line J. Musser-cross-roads 580. Upon a hostile advance in strength the outpost will check the enemy, and without becoming seriously engaged, will retire behind the flanks of the main line.

The Quartermaster has obtained tools in Gettysburg which he will divide among organizations in accordance with the duties allotted them.

The field trains will assemble in this field ready to march at 5:00 a. m. Combat wagons when emptied will be returned to this field.

Messages to E. Trostle.

The colonel directed the quartermaster to load the surplus rations on hired wagons and add them to his field train.

He caused regimental headquarters to be established at E. Trostle shortly after 4:00 o'clock; but followed the 2d Battalion to Seminary Ridge, and, after learning from its commander of the manner in which he intended to prepare and hold his section, went then to the 3d Battalion for a similar conference there. He agreed with their dispositions, pointing out, though, to both the necessity for flanking the front by machine gun fire, not only of their own companies, but in each case of the companies of the other battalion, as far as the ground permitted.

Outpost Arrangements and Orders

Major B, 1st Battalion, issued verbal orders to the captains of Companies A, C, and D, and his staff, at 3:45 a. m.:

The Red regiment that we defeated has retreated to Emmitsburg in disorder. Two fresh hostile regiments marched from Emmitsburg yesterday afternoon and camped at Fairplay last night.

We are to be reinforced today by the remainder of our brigade.

The Regiment will prepare a defensive position about a mile south of this camp.

Company A will report to the 2d Battalion to clear the foreground of that battalion's position.

Companies C and D, under my command, will secure the general line Geo. Spangler—J. Musser—Pitzer S. H.

Company C will march at once to crossroads 580; whence it will provide security from Willoughby Run to the Peach Orchard, inclusive.

Company D will proceed to J. Musser to secure the line Peach Orchard, exclusive, Round Top, J. Eckenrodes.

The outpost will prevent hostile patrols from reconnoitering the Regiment's position, but will withdraw, at my order, upon the advance of the enemy in strength.

Do not issue extra ammunition. Combat wagons will remain here.

Field wagons will report, ready to march, to the Quartermaster at 5:00 a. m.

I will take station on Round Top, with which signal connection will be made. The signal F. B. addressed to a company will be the order for its withdrawal.

Dispositions and Orders, Company C

The captain formed the company at 4:00 a. m. in march kit, and proceeded by the Emmitsburg Road. At N. Codori the company was halted while he questioned the outguard there for further information of the enemy. Nothing new having been learned, he issued orders, at 4:20 a. m., to his lieutenants and non-commissioned officers, as follows:

The Red regiment defeated by us on the 17th has retreated in disorder to Emmitsburg. Two fresh hostile regiments marched from Emmitsburg yesterday, and camped at Fairplay, about 5 miles southwest of us. We are to be reinforced today by the remainder of our brigade.

The regiment is preparing a defensive position on the rise behind us.

Companies C and D outpost the command; D Company has the sector east of us.

This company is assigned the sector from Willoughby Run to include some five or six hundred yards east of this road (Emmitsburg). We will march now on crossroads 580, nearly a mile down the Emmitsburg Road.

Lieut. R (1st Lieut.), take the 1st squad ahead as the point. Move rapidly until you have gained a distance of 400 yards, when the company will follow you.

Approaching crossroads 580, the captain called up his 2d lieutenant, and at 4:40 a. m., directed:

The company will take station near the crossroads a few hundred yards ahead.

Take the last six squads, and Sergt. L, by the road to the right to a station, as Picket No. 1, about midway between Willoughby Run and this road. Secure from Willoughby Run to the first ridge west of the Emmitsburg Road, inclusive. Stop hostile patrols. If the enemy advances in strength, the company will fall back to Seminary Ridge through the timber to our right rear. You will join us near the southern corner of that timber (pointing to the patch 600 yards northwest of J. Smith).

The captain then had word passed up by the connecting files to the point for Lieut. R to join him; and at crossroads 580 directed that officer:

The company takes station here. Post Corporal Y's squad (the point) on the next ridge, as outguard No. 2, and then rejoin. Lieut. S (2d Lieut.) has taken the road to the right to secure from the first ridge west to Willoughby Run. D Company will probably have troops on Round Top, and at Devils Den. The corporal will fire on any Red detachment. If the enemy advances in strength, he will fall back on the company.

The captain directed the leading corporal of the main body:

Station your squad, as outguard No. 3, at the southern corner of this orchard, east of the Emmitsburg Road and south of the road leading from this crossroad to the east. Prevent any hostile patrols from working through the timber from the south. Corporal Y has a squad on the next ridge of the Emmitsburg Road (pointing toward J. Rose), the company will be on this knoll (587), and D Co. will probably have men within 3 or 4 hundred yards east of you, and at Devils Den and on Round Top.

He next conducted the company to the road just north of knoll 587, on which knoll he intended to deploy if resistance towards the south became necessary; posted a sentry thereon, and signallers to get connection by flag with Round Top, and by semaphore with Lieut. S (Picket No. 1). He started a patrol of 2 men by the road to the east, to get connection with D Company and learn of its nearby dispositions. A sergeant with a couple of men was sent to reconnoiter the line of retreat across country to the north, and then by the unimproved road towards Seminary Ridge; and to cut all fences that might interfere with the company's withdrawal. The remainder of the company stacked arms and rested nearby.

Dispositions and Orders, Picket No. 1

Lieut. S (2d Lieut.) turned his six squads to the right at crossroads 580, and clearing the Emmitsburg Road, halted them. He directed the leading corporal:

Get two hundred yards distance to the west with your squad, at double time, as point of this detachment. Take the left hand road at the fork ahead.

When clear of the woods southwest of knoll 589, the lieutenant halted the detachment, and directed:

Corporal R (who had the point), take your squad to a station near the western edge of this timber (the patch 300 yards south of east of Pitzer S. H.) and south of this road, from which you can watch the road along the stream (Willoughby Run) 6 or 7 hundred yards west of us. Fire on any hostile patrols that attempt to work north. I am going with the bulk of the platoon beyond the timber to the south.

Corporal L, take your squad to the southern edge of that clump of timber (pointing to the one on the 589 ridge to the southeast). Establish semaphore connection with the company at the crossroads where we left them, and with me in the timber south of this point. Prevent the advance of any hostile patrols from the south.

Corporal M, double time ahead with your front rank through the timber directly south of us. Halt when you reach open ground on the other side.

Leaving one man in the road to direct messengers to him, he then conducted the remainder of the detachment to the southern edge of the timber on the small nose 600 yards northeast of J. Biesecker. There he posted one man up a tree with glasses in observation to the south, a double sentry at the bend in the road through the timber 200 yards east of the platoon, one man north of the road to connect with the squad on the ridge to the east, and one at the timber corner 200 yards to the west to connect with the squad watching Willoughby Run. The remainder of the men were in the farm road where it crosses the nose located above.

Dispositions and Orders, Company D

D Company marched at 4:00 a. m. straight south on the Taneytown Road, and halted to question the outpost if anything further had been heard of the enemy.

At the outguard near roadfork 545, the captain assembled his officers and non-commissioned officers, and ordered:

The Red regiment defeated by us on the 17th has retreated in disorder to Emmitsburg. Two fresh hostile regiments marched from Emmitsburg yesterday afternoon and camped at Fairplay, about 5 miles to the southwest. We are to be reinforced by the remainder of the brigade today.

Our regiment is preparing a defensive position north of us.

Companies C and D outpost the command; C Company has the sector west of us.

This company will secure the line Peach Orchard, exclusive, Round Top, wooded knoll $\frac{3}{4}$ mile to the left front (532 near J. Eckenrodes).

The first six squads, and Sergeant M, under Lieut. J (1st Lieut.) will proceed rapidly down the Taneytown Road and will take station, as Picket No. 2, on Round Top. Secure the sector from Devils Den, exclusive, to the Taneytown Road, inclusive.

Lieut. K (2d Lieut.) will take the next four squads by the farm road to the right to the knoll above Devils Den, as Picket No. 1, and will secure from the nose just east of the Peach Orchard, inclusive, to the eastern fork of Plum Run.

I will take station with the rest of the company at the J. Musser farm about $\frac{3}{4}$ mile south of this point.

Hostile patrols will be prevented from penetrating the screen. Watch the Emmitsburg Road for opportunities to check the enemy by long range fire. Upon a hostile advance in strength, the outpost will retire at the major's order. D Company will rendezvous at this roadfork.

Battalion headquarters is going to Round Top.

Semaphore connection will be established with J. Musser. I will put a relay station for Picket No. 1 on Little Round Top.

The two pickets moved out at once on the routes assigned to them, each throwing out a point of one squad by orders similar to those used in C Company. The right picket (No. 1) sent one squad to knoll 548, just west of the wheatfield, and one on to the nose and near the western branch of Plum Run, due west of knoll 561 (Devils Den). The lieutenant and 3 men took station on knoll 561, one watching Round Top, and one the country to the southwest. The remainder of the picket was posted in the timber inside the fence corner just west of the crest of knoll 561. A patrol of two men was sent to connect with C Company.

The picket on Round Top had an extended view in all directions. The lieutenant there posted one man in observation of the ground from the Hoffman farm to Rock Creek, and another watching from the Hoffman house to Willoughby Run, paying particular attention to the Emmitsburg Road. He sent one squad due west to the nose 400 yards from the summit of Round Top, directing its leader:

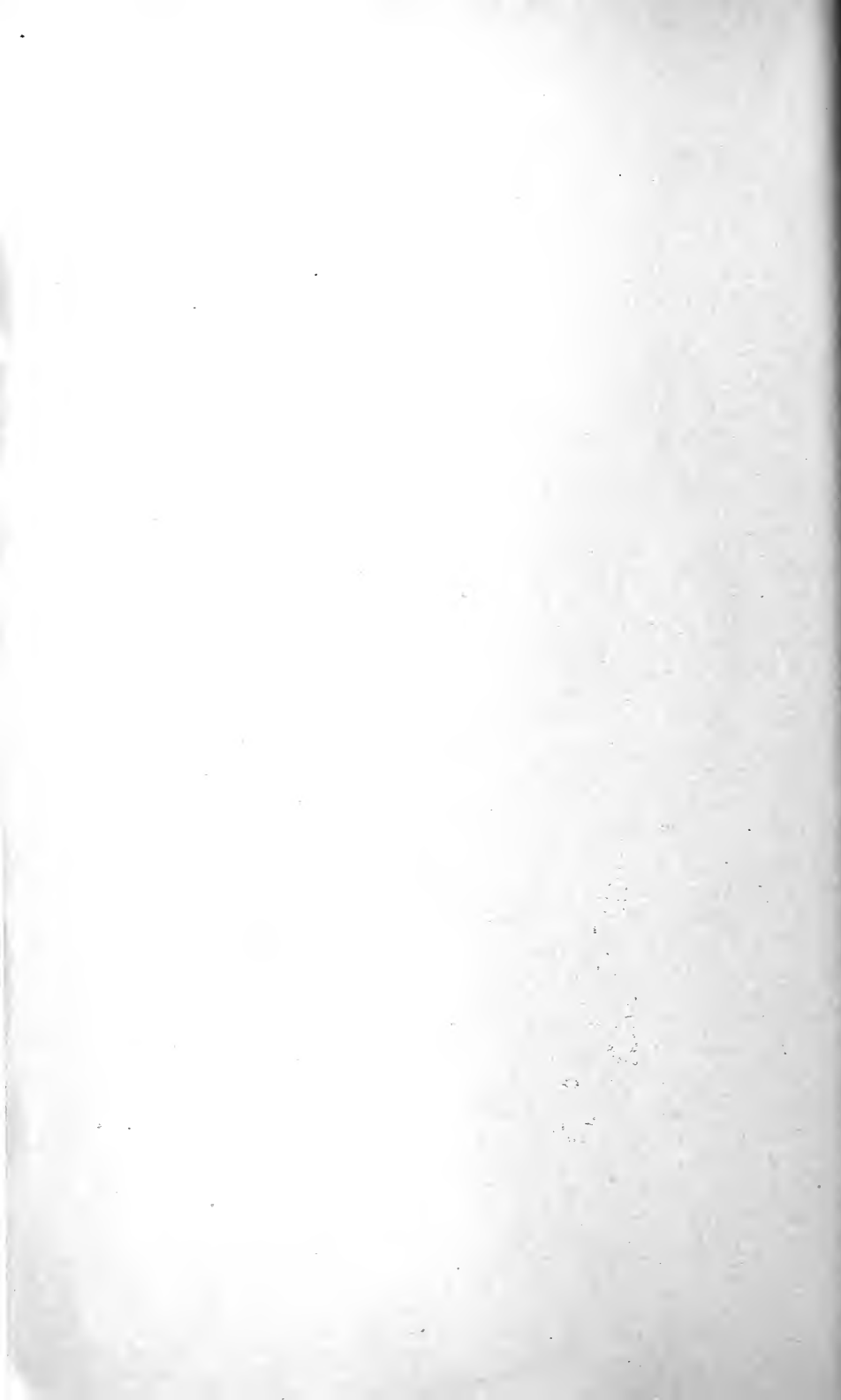
Take station on the nose about 400 yards west of this summit to prevent any hostile patrols from passing between Plum Run, below us, and this point. Fire on any Red patrols that you see. The enemy is likely to appear soon on the Emmitsburg Road over there. When he does, I shall open fire from this hill.

The lieutenant and his range finders estimated the distance to the J. A. Wolfe and the Vaughan farmhouses, and to crossroads 540 and 450. He noted the mean of the estimates obtained to each for use if the enemy appeared in the vicinity.

Battalion headquarters was established just north of the crest. Two signal stations were posted, for concealment a short distance down the northern slope. One quickly established semaphore connection with D Company's station on the J. Musser house, and the other by wigwag with C Company at crossroads 580. The sergeant major was in charge of these stations, the remainder of their personnel being furnished by the detachment of D Company on the hill. The horses of the battalion were held a little farther down the slope, and the two orderlies were kept in readiness to deliver messages mounted, if for any reason, there was a hitch in the signals.

SKETCH NO. 6. Outpost. A. M. June 19.





The captain of D Company marched the six squads left with him about 500 yards behind the detachment going to Round Top. Approaching the J. Musser farm, he detached two men to the top of Little Round Top to relay messages from the Devil's Den knoll. He sent a sergeant, two musicians, and a private to the top of the J. Musser house. One musician there maintained connection with Round Top, and one with Little Round Top. The sergeant watched the Taneytown Road and country to the south. A messenger was to be left on the ground, but he went first with the company to locate its station.

The company halted in the road between the orchards west of knoll 532, stacked arms, and rested except for one sentry thereat, and a cossack post on knoll 532 which observed the sector Taneytown Road—J. Eckenrode farm.

The entire outpost was in position by 5:20 a. m. (See 5:20 a. m. Sketch No. 6).

In this outpost we find dispositions differing radically from those for the night of the 17th. Then, there was a beaten enemy whose only thought apparently was to escape. Three sentry squads in observation on the three roads by which the enemy might return, with an occasional patrol between these detachments, and a single mounted patrol to hang on to the defeated regiment, furnished ample strength for the first line. Now, with a superior enemy who can be expected to advance aggressively, no such simple measures will suffice. The present outpost has not only the duty of furnishing sufficient warning to the main body of a hostile approach, but, since the whole desire of the regiment at present is to gain time, must interpose an effective screen against the reconnaissance of his detachments. These greatly different conditions require both much greater total strength in the outpost and a very different distribution of troops therein. With no intention of resisting the determined advance of any large body of the enemy, no particular strength is required on the line of supports, and no reserves at all are necessary. But since every effort must be made to prevent the small patrols of the enemy from breaking through, the first line to offer resistance, that is, the line of

observation, must be relatively strong and its parts well connected up.

The ground very much favors this work of screening. By the occupation of the Round Tops, and the ground east and west of the northern one, the enemy can tell nothing of what is happening beyond them until he has penetrated or broken this line. Round Top, itself, if rather strongly held, should alone cause the enemy considerable delay. For no large body can march by without first taking it, because long range fire therefrom will reach the Emmitsburg Road, and the most convenient roads and crossroads directly south of it. The ground likewise facilitates withdrawal without loss. By dropping back a few yards, all of the detachments can place themselves under cover, and the companies find convenient routes by which to pass by the flanks and uncover the front of the main position.

The outpost commander has also taken an unusual position, in front, rather than behind his line of supports. His important duty is the determination when to withdraw. Unless that withdrawal is accurately timed, and the detachments move off practically together, some will be caught by the enemy and lost. The major has taken the position which most favors a proper decision, and concerted movement.

Exact coordination of this movement requires a system of prompt and unfailing communication. Great care is therefore taken in the establishment of such throughout the outpost. The flag will well serve to both companies. The semaphore, at 900 or a 1,000 yards, will have no difficulty in transmitting from battalion headquarters to D Company, and the larger flag using the Morse Code, at about 1,900 yards to C Company. No attempt will be made, after once getting communication, to send any lengthy messages. The first appearance of the enemy will be reported from Round Top, and then the system kept clear for the withdrawal signal. If for any reason, there is the slightest hitch with the flags, the major has the mounted messengers in reserve.

The supports at crossroads 580, and at J. Musser, are there not to reinforce the line of observation, or to fight

where they are; but simply by their fire to assist the withdrawal of their outguards, if any of the latter require such assistance.

But little patrolling is required until the enemy begins to appear. Then patrols will be used to ambush or drive off hostile patrols that are threatening to penetrate the screen.

Actions and Orders, 2d Battalion

The 2d Battalion was formed, in march kit, at 4:00 a. m. A Company reported. The major had previously directed the senior captain to divide the tools obtained from the quartermaster among the companies, and then to march the battalion by the farm road west of camp to that road's southernmost end. The major with his adjutant and orderlies galloped ahead for a hurried reconnaissance of the ground. That made, he sent his adjutant to meet the battalion, halt it south of the farm road it was marching on, and direct its captains and the officer commanding the machine guns to join him on Seminary Ridge, and to order the issue of ammunition.

The major on that ridge (he is about at "n" in the word Seminary, 3-inch map), at 4:20 a. m., issued the following orders: 4:20 a. m.

The hostile regiment we defeated on the 17th has retreated in bad shape to Emmitsburg. But two fresh Red regiments marched from Emmitsburg yesterday afternoon, and camped last night near Fairplay, about 5 miles south of this point.

The remainder of the brigade begins to arrive in Gettysburg by rail at 10:00 o'clock this morning.

Our regiment prepares a defensive position extending a little south of east from this point. The 3d Battalion is on our left with its right in that large orchard (pointing to the one 350 yards to the east). The 1st Battalion (less 2 cos.) is outposting an east and west line a mile or more to the south.

This battalion will prepare a position from the southern point of the large orchard, exclusive, to this ridge, inclusive.

Company E will intrench the low rise with its right about 250 yards southeast of this point. It will be prepared to fire to the south towards that low knoll (572) and up the draws to the southeast. It will also be able to bring the fire of not less than one platoon to the west into the draw south of this point.

Company F will intrench across Seminary Ridge at this point to fire to the south.

The machine guns will be posted in the F Company line at the crest of the ridge and be prepared to bring fire over the whole sector from the wooded knoll (586) due west to the railroad line to the east.

Company G, with its left about 100 yards west of this point ("n" in Seminary), will intrench to fire to the south and southwest.

Standing trench will be dug.

All axes of these three companies will be turned over to H Company which will clear Seminary Ridge in front of F Company to the cross fence north of the ravine. H Company will send one squad to intrench the Battalion Headquarters. It will also send a combat patrol of two squads to the bare knoll (522) a thousand yards to the west.

Company A will start at the cross fence north of the ravine and clear to the south. Fill the ravine with timber. Construct a strong obstacle along the stream line to the junction 400 yards west of the ridge. Station a small security patrol well to the south of your working parties.

Battalion Headquarters will be established at the fence corner one hundred yards north of this point. Get semaphore connection therewith.

The major then directed the adjutant to send the empty combat wagons back to the camp ground, to intrench the headquarters station, to arrange the system of communication with each first line company and with H Company, which will probably be stationed north of the hedge to the right rear of G Company; and by semaphore or wigwag with regimental headquarters at the E. Trostle farmhouse. The major then rode the line from left to right to make certain the company commanders had understood and were locating their trenches in accordance with his orders. He also carefully reconnoitered the timber and orchards on Seminary Ridge, north of the battalion's position, with a view to withdrawal, if to do so became necessary.

Orders and Arrangements, Company E

The commanding officer of E Company stacked arms and removed packs a few yards back of the position assigned that organization; and with his platoon commanders roughly marked out the line to be intrenched. He then issued the following orders to his officers and non-commissioned officers:

The Red regiment we defeated on the north side of Gettysburg has retired in disorder to Emmitsburg. Two fresh hostile regiments came out of Emmitsburg yesterday afternoon and camped last night about five miles southwest of us.

The remainder of our brigade will reinforce us today. Our regiment prepares a defensive position along this line. Two companies of the 1st Battalion have an outpost a mile or more to the south. F Company is on Seminary Ridge to our right, and the 3d Battalion on our left.

This company will dig a standing trench along the indicated line, by platoon, in order from the right: First, Second, Third and Fourth. Dig squad trenches first, and then connect around traverses.

The First platoon will be prepared to fire into the ravine to the right, and the Fourth towards the farmhouses to the southeast (N. Codori). The Third platoon will send a squad to construct shelter for the company commander.

Corporal K with three men of his squad will take station on the low knoll to the front (572) in observation of the country to the south thereof. A Company will probably have a security detachment to your right.

Sergeant M, with the remainder of Corporal K's squad, will measure and mark distances to the crest to the south and southeast, and into the ravine to the west.

The musicians will get semaphore connection with Battalion Headquarters, which is to be established near that fence corner (pointing to one near "y") on Seminary Ridge.

The captain then indicated to the squad from the 3d Platoon where shelter, about 20 yards back of the center of the line, was to be constructed for the captain, and for the musicians about 3 yards to his right and his left. The right musician was entirely protected from the front, his whole business being to communicate with battalion headquarters. The left musician watched the platoons and constituted the agent of communication therewith. The chiefs of platoon were similarly intrenched 4 or 5 yards behind the centers of their respective platoons. Having watched the beginning of work, the captain, after the major's visit, went to the company of the 3d Battalion, which could be seen at work in the orchard, to find out if any other arrangements for support were desirable beyond the flanking fire of the left platoon already provided for.

The orders and arrangements in the other companies of the battalion resembled those in E Company, and therefore need not be noted here.

Actions and Orders, 3d Battalion

As soon as the major of the 3d Battalion received the regimental order, he directed the senior captain to form the battalion at 4:00 o'clock, receive the tools from the quartermaster, and then march the battalion to E. Trostle. Like the commander of the 2d Battalion, he then rode forward with his adjutant and orderlies to reconnoitre the ground. The battalion reached E. Trostle at 4:25 a. m. The captains, including B Company's, and the commander of the machine

guns, were assembled at the farmhouse on the western side of knoll 606, ammunition being issued during their absence from the battalion. Orders were issued as follows:

The regiment we defeated on the 17th, has retreated to Emmitsburg in disorder. Two fresh regiments came out of Emmitsburg yesterday afternoon and camped some five miles south of us last night.

The remainder of our brigade will reinforce us today. The regiment intrenches an east and west line through this point. The 2d Battalion is on our right. Two companies of the First are covering us in the vicinity of Round Top.

This Battalion will intrench from the large orchard to the right, inclusive, (pointing to the one 600 yards to the west) to this knoll (606), inclusive.

Company I will intrench near the southern end of the orchard to fire to the south and southwest.

Company K will intrench the nose to our right rear, with the company's left about 100 yards west of the Emmitsburg Road, to fire to the south.

Company L, with the machine guns, will intrench the southern end of this knoll (606) to fire over the sector included between the Emmitsburg and Taneytown Roads, both inclusive. The machine guns will also be prepared to bring flanking fire across the front of all trenches clear to Seminary Ridge.

Company M will intrench the south slope of Cemetery Hill so as to be able to fire on both sides of the Taneytown Road, and across the left of L Company's trenches. This company will send one squad to battalion headquarters.

Company A will clear the foreground of L Company to the south and southeast.

Empty ammunition wagons will return to the camp ground.

Battalion Headquarters at this house. Semaphore communication therewith.

The major then directed the adjutant to arrange battalion headquarters, and open communication with the companies and regimental headquarters. Starting with L Company, he inspected the locations selected by the companies.

Orders and Arrangements, Company L

Upon receipt of the major's order, the captain of L Company sent the musician, that had accompanied him, back to guide the company and the machine gun platoon to the southern part of the orchard on knoll 606. The captain went himself to look over the ground. When the company approached, he had arms stacked, and packs removed. He called up several men with picks and rapidly drew out on the ground the line to be occupied; and marked the limits of the two sections into which he proposed to divide the line. He then assembled his officers, non-commissioned officers,

and the commander of the machine gun platoon, and directed:

The Red regiment defeated by us north of Gettysburg has retreated to Emmitsburg in bad shape. Two other Red regiments marched from Emmitsburg yesterday and camped last night about five miles southwest of us.

We are to be reinforced by the remainder of the Brigade today. Our regiment is preparing a defensive position extending to the west from this knoll.

Part of the 1st Battalion has an outpost near Round Top. The 2d Battalion is on our right. I Company is in the large orchard west of us, and K Company on the nose 500 yards to our right rear.

This company will construct standing trench on the line I have marked out: The machine guns in the center, the 1st and 2d Platoons, under Lieut. K, on the right, the 3d and 4th Platoons, under Lieut. L, on the left. The right half will be prepared to fire over the ground from the low knoll to our right front (584), inclusive, to the one to the south (566), exclusive. The left half, from the draw to the south (towards A. Trostle's) to include the farmhouse southeast of us (Mrs. Buck).

The machine guns will be intrenched to bring fire from the ravine through Seminary Ridge due west of us to the farmhouse southeast of us (Mrs. Buck).

Sergeant B, with four men from the 2d Platoon, will mark the ranges to the wooded knoll (592) to the south, and the low one with the farmhouse and orchard thereon to the southwest (pointing to J. Smith).

The 3d Platoon will send six men to this point to intrench the company commander's station.

The musicians will establish semaphore connection with Battalion Headquarters at the yellow farmhouse (pointing to the one south of E. Trostle).

Events of the Morning to 9:30 o'clock

Hostile troops were seen from Round Top shortly before 6:00 o'clock marching north on the Emmitsburg Road through Greenmount. By 6:30, the enemy's leading elements were west of Round Top. The detachment thereon, shortly afterwards, opened fire with combined sights on what appeared to be the support of a battalion in advance guard. It seemed to obtain a few hits, and halted the advance guard in some confusion. At 6:40, two or three Red companies started towards Round Top from the direction of J. A. Wolfe. By 8:00 o'clock, hostile detachments of some size were working up the southern and western slopes; while firing over on the Emmitsburg Road, indicated that the enemy was also pushing his reconnaissance against C Company. The major then signalled "F.B" to each of his companies. The companies in turn signalled their detachments to with-

6:30 a. m.

6:40 a. m.

8:00 a. m.

draw, and the entire outpost began a nearly simultaneous movement straight to the rear along the previously selected and reconnoitered routes. The right company, C, moved rapidly in column due north to the orchard, two hundred yards from crossroads 580; and then under its cover, down the draw into the timber, 700 yards northwest of J. Smith. The squad that had been stationed as an outguard at J. Rose, followed as a rear point, deployed as skirmishers at 5 yards. The rear point halted on reaching the timber. The company moved up the road a couple of hundred yards, and waited for the six squads that had been on the 589 ridge to come in; then continued the march by the wood road and the draw, west of Seminary Ridge.

The left company, D, moved immediately upon receiving the signal to withdraw by the Taneytown Road to crossroads 545, and there waited for the detachments at Devils Den and Round Top, which came in promptly and without loss. The march was then continued north, leaving a single squad on knoll 592 to remain in observation until a hostile advance should compel further withdrawal.

9:30 a. m. The Red patrols closely followed the Blue outpost, and by 9:30 a. m. were feeling out, and had drawn fire from, the Blue position from Seminary Ridge to the Taneytown Road. All of the Blue covering detachments to the front had come in. The working parties in front withdrew upon the approach of the outpost companies.

Regimental Commander's Orders for Defense of the Position

8:25 a. m. As soon as Major B (outpost commander) was certain that his companies were starting the withdrawal, he and his staff rode rapidly north on the Taneytown Road and to regimental headquarters at E. Trostle. There at 8:25 a. m. he received the following verbal orders from the colonel:

We will defend the position we have prepared. Assemble your battalion in reserve at the race track. Put a squad in observation on Culp's Hill. Have them connect by flag with this building (E. Trostle). Send a platoon to the vicinity of Willoughby Run on the Hagerstown Road. Get semaphore connection from your battalion with this building.

8:30 a. m. At 8:30 a. m., the colonel had manifold copies of the following delivered by mounted orderlies, to the 2d and 3d Battalions:

SKETCH NO. 7. Defence Position June 19.





1st Inf., E. TROSTLE,
19 June, 8:30 a. m.

8:30 a. m.

F. O. No. 10.

1. Our outpost has withdrawn before strong hostile forces advancing on EMMITSBURG ROAD.

2. We will defend the position as prepared.

The 1st Bn. will assemble in reserve at the racetrack. It is sending patrols to CULP'S HILL and to WILLOUGHBY RUN on the HAGERS-TOWN ROAD.

A,
Colonel.

1st Inf., E. TROSTLE,
19 June, 8:45 a. m.

8:45 a. m.

Captain Q. (Regtl. Q. M.)

Enemy advancing in force on EMMITSBURG ROAD. We defend position. Send Band and combat wagons, 2d and 3d Bns., to CENTRAL SQUARE, GETTYSBURG, at disposal Surgeon. Conduct field train by westernmost streets GETTYSBURG to BOYD S. H.

By order, Colonel A:

X,
Adjt.

NOTE: Band had been left at the camp of the preceding night.

Actions and Orders, Battalion Commanders

Upon receipt of the colonel's verbal instructions at 8:25 a. m., Major B (1st Bn.) said to his adjutant:

Ride over to Seminary Ridge. Direct A and C Companies to proceed to the racetrack, where the battalion assembles in reserve. Have C Company send a platoon to Willoughby Run, on the Hagers-town Road, to cover our right flank. Send your orderly with that platoon for messenger duty. I will direct B and D Companies to go to the race track.

B Company was found on the Taneytown Road, east of knoll 606, and directed to proceed to the racetrack. It was told to send immediately one squad with a flag to Culp's Hill to remain in observation to the south and west. This squad was to communicate directly by flag with regimental headquarters at the E. Trostle house.

The major of the 3d Battalion received F. O. No. 10 at 8:32 a. m. At 8:35 a. m. he had signallers semaphore simultaneously to the three first line companies, and immediately afterwards to M Company:

Enemy advancing. Occupy trenches.

The 2d Battalion received the order at 8:35 a. m. A 8:35 a. m. and H Companies had quit work and were then under cover

300 yards northwest of the station of battalion headquarters, and their captains were with the major, where they had gone for instructions. The major had his three first line companies (the machine guns are with the center company) semaphored: Enemy advancing. Occupy trenches. He then read F. O. 10 to the officers with him, and said:

Captain A. Go on to the racetrack. Captain H. Your company will take station in support north of the hedge to the right rear of G Company. Bring in your patrol from the right flank, as soon as the 1st Battalion gets a platoon out there.

(See sketch No. 7 for details of position.)

WITHDRAWAL FROM ACTION

At 10:15 a. m., the colonel received the following message: 10:15 a. m.

Mt. Holly Springs,
19 June, 9:30 a. m.

Colonel A,
Gettysburg.
Mountain Creek bridge down. Am detraining at Mt. Holly Springs. Cannot move south before tomorrow.

B,
Brig. Gen.

By 10:20 a. m., the Reds had deployed a practically continuous firing line extending from knoll 566, west of the Taneytown Road, south of the N. Codori houses, over knolls 572 and 577, and into the large orchard southwest of Seminary Ridge. (Sketch 8). Over nearly the whole front, the opposing firing lines were rather hotly engaged. 10:20 a. m.

The message above leaves Colonel A no choice but to withdraw. His chances for victory against at least twice his strength, if he should fight to a decision, would be anything but good. In trying to save Gettysburg, he must not run the risk of a failure in his true mission, which requires him to keep an unbeaten regiment between the enemy and the rest of the division. Since he is going to withdraw, he must start to do so at once. The more closely he allows his command to become engaged, the more difficult and costly will be the withdrawal when finally made.

His orders follow:

At 10:20 a. m., by messenger:

1st Inf., E. TROSTLE,
19 June, 10:20 a. m. 10:20 a. m.

Major B: (1st Bn.)
Regiment withdraws. Place 1st Bn. vicinity HAGERSTOWN ROAD, west of SEMINARY RIDGE, to cover withdrawal remainder regiment.

A,
Colonel.

1st Inf., E. TROSTLE,
19 June, 10:25 a. m.

10:25 a. m. Captain Q: (Regtl. Q. M.)

Regiment withdraws. Conduct field trains at once via west branch CARLISLE ROAD to north side CONEWAGO.

By order, Colonel A:

X,
Adjt.

10:30 a. m.

1st Inf., E. TROSTLE,
19 June, 10:30 a. m.

F. O. No. 11.

1. Remainder our Brigade delayed north of GETTYSBURG.
2. Regiment will withdraw to BOYD S. H.
3. (a) 3d Bn. at once via GETTYSBURG.
(b) The 2d Bn. will withdraw when 3d Bn. clears CEM. HILL.
(c) 1st Bn. takes station on HAGERSTOWN ROAD, west of SEMINARY RIDGE, to assist withdrawal 2d Bn.
4. Regtl. Hq. will accompany the 3d Bn.

A,
Colonel.

Manifold copies of Field Orders, No. 11, were delivered by mounted messengers to the 2d and 3d Battalions, receipt being acknowledged at once by semaphore.

The colonel then verbally directed the surgeon, who had heard these orders read before signature: Start what wounded you have collected at once to the north.

It seemed best to the colonel to break off the action rather in the customary manner, that is, by starting first the troops of the fighting line that were farthest from the enemy, in this case the 3d Battalion. If, on the contrary, he had caused the 2d Battalion to lead, the enemy, who at 10:20 a. m. was only a few hundred yards from it, by following its retiring lines closely, would almost immediately have found himself on the flank of the 3d Battalion. The right companies of the 3d Battalion then would have had considerable difficulty in getting away. But with the 3d Battalion retiring first, the enemy's lines behind that battalion had much farther to go, and consequently much more time must elapse before they could pass the flank of the 2d Battalion. He might have started the two battalions at the same time, but the 2d Battalion, from the nature of the ground, would probably have gotten away a little earlier than the 3d, with a somewhat greater chance, consequently, of trouble for the 3d Battalion. By moving off a battalion at a

SKETCH NO. 8. Situation At 10²⁰ A. M. June 19.



time, the regiment will more naturally and promptly take up the march in retreat from Boyd S. H. under cover of a regularly constituted rear guard. By leaving the battalion most closely engaged to the last, he is continuing the troops now having the hardest duty, in the most responsible and difficult position. But of course, Colonel A's thought must be for the security of the greatest number. If to save two battalions it is necessary to sacrifice the third, he must not hesitate to do so. In the case at hand, however, he is not making any such choice. By reason of the favoring ground behind most of its companies, and the assistance of the 1st Battalion, there should be no particular difficulty in the 2d Battalion hanging on for some little time, and yet in getting away finally without much loss. The colonel, of course, might have made the escape of the 1st and 3d Battalions absolutely safe, by starting those at once straight to the north, leaving the 2d to extricate itself as best it could. That, however, would have jeopardized the 2d Battalion to an entirely unnecessary extent. The 1st Battalion can quickly be gotten into position well out on the threatened flank, from which it can bring fire against the enemy as he comes into the present position of the 2d Battalion, and thereby be of the utmost assistance to the latter. The 1st Battalion in turn will find the ground behind it well fitted for an orderly retirement.

It will be noted that the colonel ordered his regiment to retreat to Boyd S. H., or, in other words he named that as the rendezvous or assembly point. Boyd S. H. is about $3\frac{1}{2}$ miles away. By the time the bulk of the regiment reaches that point, they should have shaken off the enemy to the extent at least, that an orderly retreat with a regular rear guard will be practicable thereafter. Such a point must be at a considerable distance, or the enemy may make it impossible for the fractions of the command to stop there. On the other hand, it should be no farther away than is necessary to make sure it will serve its purpose, since the command, as quickly as possible, should be reassembled and brought under control.

That distance will naturally vary with the size of the command, aggressiveness of the enemy, ground, etc.

No route to Boyd S. H. is assigned to the 2d Battalion. What will be best for that battalion depends very largely upon what the enemy does, and therefore should be left to its immediate commander.

Actions and Orders, 3d Battalion

10:32 a. m. The order for withdrawal was received at 10:32 a. m. The major had I and K Companies semaphored: Withdraw at once to racetrack, and L Company: I and K withdraw. L and guns cover movement, and finally, M Company: Bn. withdraws. M covers movement.

The major watched the withdrawal of I and K Companies. When the last men of I Company cleared the orchard which that company had defended, he semaphored L Company: L and guns withdraw.

He then sent his adjutant to the racetrack to bring I and K Companies into the Taneytown Road east of the racetrack, while he personally directed the captain of L Company:

You will move rapidly on with your company to the Taneytown Road east of the racetrack, pick up I and K Companies, and continue the march with them to Boyd S. H. I am going to direct M Company to secure the Battalion's march, and then I'll join you. Send the machine guns to M Company on Cemetery Hill.

Crossing over to M Company he directed its captain:

The regiment is withdrawing to Boyd S. H., this Battalion leading. I and K Companies are now near the racetrack. L Company is passing your right. The machine guns have been ordered to join you. Follow L Company as rear guard at one half mile.

From Cemetery Hill the major watched the enemy's advance for a few minutes, and then galloped north in time to join the battalion shortly after the three companies had united.

The movement of the 3d Battalion to the rear might have been expedited by starting M Company at the same time as I and K. But that would have left L Company to shift for itself; and if the enemy happened to realize at once what was being done, and advanced rapidly from the N. Codori houses, unless he was checked by fire from the di-

rection of E. Trostle or Cemetery Hill, L Company would have been placed in serious straits.

Actions and Orders, I Company

The trench of I Company was almost entirely within the large orchard, and about 10 yards back from its southern edge.

The captain, at 10:40 a. m., signalled his platoon commanders: Assemble personally. They ran in quickly to within earshot. The captain directed:

The company withdraws. Detail one experienced man in each squad to remain behind under Lieut. X (1st Lieut). Lieut. X will cover our retirement by taking up rapid fire with these men until the company has been gone 5 minutes, and will then follow. When you have made up your details signal "ready." The company will move to the rear at my signal "Cease Firing, To the Rear."

At 10:45 a. m., the company started back, moved a hundred yards in line of skirmishers, then in squad columns at a walk to the north edge of the orchard, and thence to the northeast. The main body of the company assembled in column of squads 400 yards northwest of H. Bishop and marched to the racetrack. Lieut. X's party followed at some 600 yards, deployed as skirmishers at six paces.

K Company's movement to the rear was similar, cover being obtained at once behind the crest immediately north of the trenches. The machine guns with L Company were turned on the hostile lines in front of I and K to check any hostile tendency to follow them. When L Company received the signal to start, the machine guns were carried by hand to the animals, which were in the timber east of battalion headquarters. L Company followed almost immediately under cover of accelerated fire from a thin line left for a few minutes in the trenches.

Actions and Orders, M Company

The trenches of M Company were high up the southern slopes of Cemetery Hill—just below the 620 foot contour—with the timber in front well thinned out. Upon receipt of the semaphore message from the major to cover the withdrawal of the remainder of the battalion, the captain directed his 1st lieutenant:

The battalion is withdrawing; this company covers the movement. Take your platoon to the Emmitsburg Road near that farmhouse (pointing to E. Trostle). Open fire whenever the enemy offers a target. I'll remain here for the present.

The captain assembled the remaining platoon commanders, told them of the withdrawal and M Company's task, and then with them watched its progress. Immediately after the major had detailed the company as rear guard, the machine guns were brought up at a trot. The captain then
11:07 a. m. at 11:07 directed:

The machine guns will take station on the crest of this hill (Cemetery), and open fire at once upon any hostile target that is offered to the southwest or south.

Lieut. K (2d Lieut). Move north under cover east of the crest (of Cemetery Hill) with the 3d and 4th platoons to the nearest house of Gettysburg on the Baltimore Turnpike. Be prepared to support our withdrawal by fire when we move from this hill.

The 2d platoon will remain in the trenches. Open fire at once on any hostile detachments that appear to the south.
I'll remain here.

11:18 a. m. At 11:18 a. m., L Company disappeared in the streets of Gettysburg. The captain of M Company immediately directed the machine gun commander to trot north on the Baltimore Pike and go ahead of Lieut. K (the 2d lieut.) through Gettysburg, and to tell Lieut. K to keep moving directly on Boyd S. H. He semaphored the 1st lieutenant: Withdraw, follow L Company; and when the movement had begun, directed the 2d platoon to follow the bulk of the company by the Baltimore turnpike as rear party. The captain then met the first lieutenant near H. Bishop, and directed him to continue as right flank guard by the Taneytown Road and on through Gettysburg. The captain hurried ahead to join his 3d and 4th platoons.

It will be remembered that the 1st Battalion had a patrol of eight men on Culp's Hill. These saw the first movements of the regiment in retreat. The non-commissioned officer in charge realized, however, that his position facilitated observation of the hostile movements, and that he had an excellent covered line of retreat up Rock Creek, which would probably not be cut by the enemy for some time. Or, when that was cut, he could cross Rock Creek and rejoin

by a somewhat greater detour. He therefore remained in observation until the enemy's leading detachments were actually entering Gettysburg and a hostile patrol ascending Stevens Hill. No difficulty was then experienced in withdrawing along Rock Creek and joining, finally, his proper battalion some miles to the north.

Actions and Orders, 2d Battalion

The commander of the 2d Battalion received the regimental order to retire at 10:35 a. m. He immediately semaphored: E withdraw to north; then directed his adjutant:

Meet E Company near the orchard to the northeast (pointing to the one at Q. McMillor house). Direct Captain E to continue north to the railroad crossing of the Mummasburg Road. Then go on yourself to the nose west of the National Cemetery. I am ordered to withdraw when the 3d Battalion clears the National Cemetery. I want you to keep track of its progress and semaphore me when its last company passes the Cemetery. Report your arrival on the nose.

He next semaphored to F Company:

Guns help withdrawal E Co. and 3d Bn.

The following message was carried by the major's orderly to F and G Companies in turn:

2 Bn., 10:45 a. m.

10:45 a. m.

Captains F and G:

The regiment is withdrawing—3d Bn. leading. 1st Bn. takes station to our right rear to cover our withdrawal.

Machine guns will assist retiring companies 3d Bn. by heavy fire on the enemy in front those companies.

F and G Cos. will withdraw at my signal "To the Rear." I will semaphore the machine guns to go just before the companies.

Acknowledge receipt by semaphore.

C,
Major.

The major watched the withdrawal of I and K Companies, and saw enough of the movement of L Company to know when that company started. The Red firing lines were unable to make much progress between the N. Codori houses and knoll 572 to the west thereof, because of the very effective flanking fire of the machine guns with F Company.

At 11:00 a. m. he sent the following message to H Company, which by this time was firing against a considerable extension of the Red lines to the west:

11:00 a. m.

2d Bn., 11:00 a. m.

Captain H:

Regiment withdraws. 1st Bn. is west of SEMINARY RIDGE on HAGERSTOWN ROAD to cover movement. Start your company at once by route near SEMINARY RIDGE to HAGERSTOWN ROAD.

C,
Major.

11:30 a. m.

At 11:30 a. m., he semaphored F Company: Guns withdraw; and three minutes later he signalled: To the Rear, to Companies F and G.

E Company moved promptly to the rear upon receipt of the major's semaphored order to withdraw, in line of skirmishers at a walk, under cover of the very rapid fire of two men from each squad, and of the machine guns on Seminary Ridge. When the company reached shelter along the railroad to the north, the covering party followed, opening out to 4 or 5 paces between men. Nevertheless the company suffered severely, losing ten men during the five or six minutes required to reach cover. The major wished he could get this company into position on the nose southwest of the racetrack to check the enemy with its fire if the Reds should follow F and G Companies too closely, but he recognized that E Company must drop many men in its movement to the rear, and that an attempt to stop a shaken command prematurely, might lead to an entire loss of control. He therefore placed its rendezvous point a good two miles to the rear.

When the time came for the machine guns to go, they were carried by hand under shelter of the timber along the ridge crest to their animals, which were south of the Q. McMillor house. The platoon then trotted ahead to the Lutheran Seminary.

At the major's signal, to the rear, F and G Companies went rapidly back into the timber behind their trenches, taking advantage of the small folds in the ground for partial protection, and covered like most of the other companies by the rapid fire of a thin line, left in this case to follow at a couple of hundred yards only. In the timber the companies formed squad columns, and continued rapidly along the ridge.

After starting these companies, the major hurried north to the horses near Q. McMillor, found H Company, and or-

dered it to continue near the railroad towards Boyd S. H. At the Lutheran Seminary he directed F and G Companies to follow the first two (E and H), F Company leaving the the equivalent of a platoon 600 yards behind as a rear guard. North of the Mummasburg Road he halted the leading companies until the four had closed, and then continued, still with the small rear guard, to Boyd S. H., where the battalion arrived at 12:40 a. m.

12:40 p. m.

Near roadfork 560, the major met the adjutant of the 1st Battalion, from whom he learned of that battalion's dispositions. The major then placed the machine gun platoon at the disposal of the 1st Battalion. At the suggestion of the adjutant the machine guns continued north to join A and B Companies.

Actions and Orders, 1st Battalion

Major B received the order at 10:30 a. m. The company stacks were east of the racetrack, in close line facing south. The major had the battalion fall in and assembled his captains; then ordered:

10:30 a. m.

The regiment is withdrawing. This battalion covers the movement from the Hagerstown Road west of Seminary Ridge. Lieut. Y (Bn. Adjt.), take my orderly and trot ahead to Seminary Ridge. We will issue ammunition at once.

The issue made, he directed the empty wagons to proceed at once to Central Square in Gettysburg, and report to the surgeon or his representative thereat. The major then conducted the battalion in column of squads straight for roadfork 560.

At roadfork 560, the major directed his adjutant, who was waiting there, to examine the ground to the west to include knoll 559; and the captain of A Company, at 10:50 a. m.:

C and D companies will deploy on the rise a half mile west of this point to check the enemy. Take A and B Companies north by the Lutheran Seminary to the Chambersburg Road, and to a position for firing down the draw west of us in support of C and D Companies when they withdraw.

At 11:00 a. m., when the center of C and D Companies was directly north of hill 559, the major halted the battalion, assembled the captains on the crest, pointed out the indica-

11:00 a. m.

tions to the south of the 2d Battalion's engagement, and directed:

Captain C: Take command of these two companies. Deploy them along this crest (559), and open a heavy fire in support of the 2d Battalion as soon as the enemy gives you a target. Send parties from each company to reconnoiter and prepare routes for your withdrawal through the timber to the north (pointing it out). Notify your platoon on our right to fall back along Willoughby Run when you retire. I am going to place A and B Companies at the head of this draw (the one immediately east of 559) to support you, and will return to you in a few minutes.

The major then galloped north to knoll 574, which A and B Companies were then approaching from the south-east. After a hurried reconnaissance of the vicinity, the major assembled the captains and directed:

The right of our 2d Battalion is about 2000 yards down this draw near the short strip of timber. C and D Companies, from the knoll where they now are (pointing to 559) will check the enemy and then withdraw through the timber to our right front. I want you, Captain A, to assist the retirement of C and D by the fire of these companies. Place an observation station on the wooded knoll east of us to watch Gettysburg and to the south. I want information of the progress of the 3d Battalion through Gettysburg, and of the 2d Battalion, which will probably come north by the Lutheran Seminary. Have that post also keep careful track of the enemy's progress in pursuit. I will leave you an orderly (mounted) to bring me word of what is seen. I am going to reconnoiter the ground behind us and then go to C and D Companies.

The orderly left was the one that had been with C Company's platoon near Willoughby Run. The major rode rapidly back to J. Forney. He promptly decided to bring C and D Companies, upon retirement from knoll 559, into positions east of, and about the J. Forney house to assist A and B Companies, which would retire from 574 by covered routes a little west of north. He then galloped back to the small knoll north of 559, where the sergeant major established battalion headquarters, and opened semaphore communication with both wings of the battalion. The adjutant was sent with the remaining orderly to roadfork 560 to report the passing of the 2d Battalion.

11:10 a. m.

The deployed companies on knoll 559, about 11:10 a. m. saw H Company start north along the western edge of the timber on Seminary Ridge, and hostile lines about the same time moving north across the farm road west of the southern point of the ridge. Fire was opened in a few moments on

the hostile lines, using combined sights at twelve and thirteen hundred yards.

At 11:40 a. m., the adjutant semaphored from the road bend west of the Luthern Seminary Tail Past. Red lines were about 800 yards away down the draw, but the enemy was evidently gaining ground more rapidly in the timber on Seminary Ridge. The flanking platoon, whose fire had been heard for the last twenty minutes, was crossing the Hagerstown Road in retreat. At 11:47 a. m., when the enemy had gained another hundred yards in the draw, and was nearing the Hagerstown Road to the southwest, the major signalled: To the Rear. The companies immediately moved back in one line due north to the timber, and through it, by the routes previously reconnoitered. Each company was covered by half a dozen scouts who remained on 559 till the company reached the timber, and then followed in a wide deployment.

The major conducted these companies at a rapid pace up the draw west of knolls 574, 576 and 577. When the battalion (2 companies) approached the Mummasburg Road, the machine gun platoon that had been with the 3d Battalion, reported, its commander saying, that the colonel had ordered it out from Gettysburg by the Mummasburg Road. The major, at 12:12 p. m. directed:

A and B Companies have an observation station at the wooded knoll (582) to the south. D Company will take station at the orchard east of this draw prepared to fire to the south, and to the southeast. C Company will take station near the house (J. Forney) west of us, to fire towards the knoll on which A and B Companies now are. The machine guns will go to the knoll to the north (642) and into position for firing on the sector from Barlow knoll east of us to Willoughby Run to the west. I am going to A and B Companies, which will withdraw under cover of the nose west of us.

By this time the observation station on knoll 582 had reported that both the 2d and 3d Battalions were past the J. Forney position, and that only small parties of the enemy had come north of Gettysburg. A and B Companies and the machine guns therewith were engaged with hostile lines south of them. The major galloped back to the vicinity of knoll 574, directed the commander of the machine guns to move rapidly north under cover (west) of the J. Forney nose and join the remainder of the company on knoll 642.

He caused the companies a few minutes later, to retire to the heavy timber to the north (the timber northwest of J. Forney). This withdrawal was made in much the same manner as that of the other two companies from knoll 559.

12:35 p. m.

By 12:35 p. m., A and B Companies were on the Mummasburg Road 300 yards northwest of J. Forney, with a sentry squad in observation at the southwest angle of the woods thereat, and a cossack post on the Mummasburg Road at their western extremity. The machine guns and C and D Companies were, as the major had ordered, on and south of knoll 642. The enemy had not yet appeared in any strength in front of the J. Forney position. Battalion headquarters was on knoll 642. The major sent the following:

1st Bn., J. FORNEY farm
n. w. GETTYSBURG,
19 June, 12:40 p. m.

Colonel A:

1st Bn. and machine guns in position on J. FORNEY farm. Have had few casualties. Enemy has to present time only patrols north of GETTYSBURG, and has not yet advanced in any strength against my position here. If compelled to withdraw, shall do so along OAK RIDGE.

B,
Major.

THE RETREAT

Regimental headquarters had retired with the 3d Battalion. When the northern limits of Gettysburg were reached, the colonel directed the major of that battalion to send the machine guns out on the Mummasburg Road to Oak Ridge, to find and join the 1st Battalion. Even before the 2d Battalion reached Boyd S. H., it was evident that the regiment, as had been anticipated, could be assembled there and marched thence in route column under the protection of a regular rear guard. The field wagons, combat wagons and ambulances with the wounded, had long before disappeared in the direction of the Conewago. At 12:50 p. m., the 2d and 3d Battalions were resting at Boyd S. H., under the immediate protection of three small detachments, when Major B's (1st Battalion) report of 12:40 came in. The following order was then issued verbally to the battalion commanders present:

Orders, Regimental Commander

The destruction of a railway bridge near Mt. Holly Springs has compelled General B to detrain there. The 1st Battalion and machine guns have withdrawn without much difficulty and ten minutes ago were at the southern end of Oak Ridge.

The Regiment will retire in the direction of Biglerville.

The 2d and 3d Battalions, in that order, will march at once.

The 1st Battalion and machine guns will follow as rear guard.

I will march at the head of the 2d Battalion.

Form your battalions.

The message below was returned by the orderly that had brought the 1st Battalion's report:

1st Inf., BOYD S. H.

19 June, 12:55 p. m. 12:55 p. m.

Major B:

The destruction of a railway bridge near MT. HOLLY SPRINGS has compelled General B to detrain there.

The regiment is retiring towards BIGLERVILLE.

1st Bn. and machine guns, as rear guard, will follow upon receipt of this message.

Leave patrol to maintain contact with the enemy.

A,
Colonel.

Orders, Commander Rear Guard

When the major received the colonel's message, the enemy had two or three companies deployed along the fence through knoll 577, and in the timber east of 577; C and D Companies were partially deployed and firing on these troops, while the machine guns were holding several Red companies by fire on the 522—Almshouse ridge. The captains assembled on knoll 642. At 1:10 p. m., the major ordered:

1:10 p. m.

The destruction of a railroad bridge near Mt. Holly Springs has compelled General B to detrain there. The Regiment marched about fifteen minutes ago from Boyd S. H. towards Biglerville.

We form the rear guard.

Company A, the Machine Gun Company, and Companies B and C, will constitute the reserve, and will march at once, in the order named, along the crest of Oak Ridge and the railroad, to come into the Carlisle Road a mile and a half north of Boyd S. H.

Company A will send a strong officer's patrol along the Mummasburg Road to the ridge half a mile west of this, and then north by the road on that ridge.

Company D, as support, will follow at 500 yards. It will leave a patrol of 4 men to remain in contact with the enemy.

I will be at the head of the support.

D Company had one platoon deployed at the southern edge of the orchard west of the M. McLean farmhouse. The remainder of the company was in support on the north side of the orchard. The captain assembled his officers and the non-commissioned officers of the three platoons in support.

1:17 p. m. and at 1:17 p. m. directed:

General B has been compelled to detrain at Mt. Holly Springs by a broken railroad bridge. Our regiment is retiring towards Biglerville. The 1st Battalion constitutes the rear guard. A company is sending a strong patrol along the ridge half a mile west of this one.

The rest of the battalion is marching north along this (Oak) ridge.

This company forms the support.

The 1st Platoon will constitute the rear party and will follow the company at 200 yards.

Sergeant B, take the 5th squad under cover to the farmhouse (J. Forney) west of us. Check any hostile troops that may attempt to advance from the south or southwest. Retire at the same time as the rear party and join it on top of the ridge north of us.

The captain had the company fall in, started connecting files to keep in touch with the reserve, and then marched through the orchard west of knoll 642. When near the crest he directed Sergeant M:

I want you to remain in touch with the enemy with three men of the 6th squad. Retire north along the ridge only as his advance

compels you to, and no farther than is necessary. Continue on, however, to join the company at dark. The regiment is marching by the west branch of the Carlisle Road. Information is wanted not only of the hostile movements on this ridge, but of the enemy's movements to the east as well.

The rear party sent connecting files, about 30 yards apart, to follow the company, and moved to the rear at the prescribed distance.

A Halt—Orders and Actions, Regimental Commander

At 2:00 o'clock the 2d and 3d Battalions were passing over the eastern nose of Hill 707. The field and combat trains had been reported as halted in column just north of the Conewago. The rear guard seemed to be a couple of miles behind. One message had been received from its commander, sent after passing west of Boyd S. H., which reported that although the rear guard had had no difficulty so far in its retirement, yet hostile troops were following both directly along Oak Ridge and on the Carlisle Road. 2:00 p. m.

The colonel decided to halt, not only to let his rear guard, which was becoming dangerously isolated, close up, but also to get a better idea of the enemy's intentions. He had no idea of continuing to run if there was not to be an aggressive pursuit by superior forces. Moreover, the ground that had been reached, was well suited for administering a check to the enemy if necessary to help out the rear guard, or to make trouble for an in-expert pursuer.

He accordingly massed the regiment in the field to the east of the road north of the 707 ridge, and directed the majors:

We will halt here for at least one hour. The 3d Battalion will place a squad in observation on the hill to the west (707) and another beyond the timber east of us.

The colonel then sent the following message:

1st Inf., 1 mile south of TEXAS

19 June, 2:05 p. m.

Major B:

The regiment is halting for at least one hour.

Close up the bulk of your rear guard to the crossroads $\frac{1}{2}$ mile west of GOLDENVILLE.

A,
Colonel.

The adjutant then notified the quartermaster that the regiment would halt for at least one hour.

A March Outpost—Orders, Commander of the Rear Guard

Major B received the order when near the Hamilton farm. For some time the battalion had seen no hostile detachments. The major dropped back at once to the captain of D Company, and directed:

The regiment is making a long halt northwest of the large hill (pointing to 707).

This battalion will halt at the crossroads a mile north of us.

Leave a platoon on this ridge, and join the Battalion with the rest of your company.

I will direct one of the mounted orderlies to remain with that platoon for messenger duty.

At crossroads 621, he turned the battalion west into the scattered trees nearby, formed close column, stacked arms, called out that time would be given here for lunch, and assembling the captains, when D Company came up, directed:

The regiment halted beyond the crest north of us. D Company has left a platoon on the ridge a mile to the south.

D Company will also send a squad to the crossroads 500 yards west of this point, and one to the nose a half mile east of Goldenville. It will place an observation station at the crossroads (621), and one on the hill (707) north of us.

With the excellent view obtainable from hill 707 for a long distance to the south, very little is required for proper security. Nothing would be gained under the circumstances by leaving a company to the south, anywhere short of the Hamilton Ridge, since it could see nothing from a station north of that ridge that cannot be seen from hill 707. The major had no intention of offering resistance to a hostile advance in strength south of the Goldenville-Mummasburg Road. The platoon at Hamilton was simply a patrol to keep in touch with the enemy, made strong enough to maintain its position in the face of the enemy's reconnoitering patrols, but not so strong that it would be tempted to remain in the face of larger hostile forces. The two squads, east and west, were sent out, directly from the support, to stop any Red patrols that might work around the platoon at Hamilton's and escape detection from hill 707.

In addition, the colonel covered the flanks of the main body of the regiment by two small detachments, the western one of which will now be relieved by the party Major B has ordered to hill 707.

A Halt for the Night

At 3:10 p. m., report was received from the lieutenant at Hamilton's that the enemy, except by small patrols, had made no advance north of the stock farm, or the knoll (636), one-half mile west of it. 3:10 p. m.

Whatever may be the intentions of the enemy, whether Gettysburg simply is his objective, or he intends ultimately to continue farther to the north, it is hardly likely that he will do the latter today. The colonel decides, therefore, to put his tired regiment into camp. To obtain somewhat greater safety for the main body, and also to give the men the benefit of the Conewago for bathing, he will take the main body to the north side. While that stream is not much of an obstacle, the division's advance later will still be facilitated if he can hold its crossings open. The colonel consequently will leave a strong outpost south of the stream.

He issued, at 3:20 p. m., the following verbal orders to the three majors: 3:20 p. m.

Lieut. X, who is down near the Hamilton farm, reports that the enemy has not come north of the Stock Farm with anything stronger than small patrols.

We will go into camp.

The 1st Battalion and the Machine Gun Company will camp near Texas and secure the heights (hill 707) south of us. If attacked, these heights will be held.

The remainder of the regiment will camp in the field north of the Conewago, and west of the Carlisle Road.

Captain A (adjutant) will ride ahead to place the company flags.

The wagons will join the troops.

Form your battalions.

The colonel then marched the regiment to camp. At 4:30 p. m., he directed the majors of the 2d and 3d Battalions to send their adjutants to report for an all-night patrol. To them, he said: 4:30 p. m.

The enemy seems to have made no advance north of the Stock Farm, except in small patrols.

I want to know his strength and dispositions near Gettysburg, and whether other troops are following the detachment we met this morning.

Lieut. K, get three orderlies from the detachment commander, and proceed at 6:00 p. m., by routes well to the east of Rock Creek until east of Gettysburg, to obtain this information.

Lieut. L, you will also take three orderlies and proceed at the same time, by routes generally west of Oak Ridge until west of Gettysburg, for the same purpose.

Let me have reports by 5:00 a. m. tomorrow.

The colonel started his reconnoitering patrols at this hour, 6:00 o'clock, so as to allow time for the care and rest of the animals, and for the men to get their supper. The necessity for such improvisation of mounted patrols for an infantry regiment is, of course, by no means frequent. This regiment is in a very abnormal situation in civilized warfare, first, in being detached; and second, when detached, in not having some cavalry with it.

The colonel forwarded the following telegraphic report from Biglerville:

No. 2
1st Inf., Camp just north of Conewago,
South of Biglerville,
19 June, 5:00 p. m.

General B,

Mt. Holly Springs.

Two hostile regiments attacked my position south of Gettysburg this morning. Upon receipt your No. 1, I started withdrawal. Effected with little loss. Enemy followed only some two miles north of Gettysburg.

Have my outpost south of Conewago. Unless hard pressed will keep open nearby crossings that stream.

My combat wagons are empty. Request at least two hundred thousand rounds ammunition be sent to Biglerville.

A,
Colonel.

Outpost

Major B, after receiving the colonel's halt order, returned to his battalion near crossroads 621, assembled his captains, and at 3:30 p. m., directed:

3:30 p. m.

Lieut. X reports that no hostile detachments larger than patrols have come north of the Stock Farm. Our regiment is moving into camp just north of the Conewago.

This Battalion and the Machine Gun Company outpost the command.

Company C, and one platoon of the machine guns, will take station on the ridge north of this point (the 707 ridge) to secure the sector Goldenville—5 forks, 1500 yards west of the Carlisle Road. In case of attack, the company will hold the 707 ridge. Signal communication from the 707 hill to Texas will be established. A platoon will be sent to relieve D Company's post at the Hamilton farm. The mounted orderly now there will remain all night.

The remainder of the outpost will camp at Texas.
C Company's rations and baggage will be sent to the Company.
Return the wagon immediately to Texas for the night.

The major marched the battalion to Texas, and camped in the field northwest thereof. He had A Company place a cossack post on the unimproved road towards Table Rock Station at the bend 250 yards east of Texas, and one at the 703 roadfork southwest of camp. He also placed a signal station on one of the houses of Texas for communication with hill 707.

Actions and Orders, Support Commander

The captain of C Company at 3:40 p. m. assembled his officers and non-commissioned officers, and the lieutenant in command of the machine guns, and directed: 3:40 p. m.

Lieut. X reports that no hostile detachments larger than patrols have come north of the Stock Farm. The regiment camps north of the Conewago; the remainder of the battalion at Texas, three-quarters of a mile north of this point.

This company and the platoon of machine guns, as the support of the outpost, take station on the ridge to the north.

The following outguards will be posted at once:

Corporal B, with his squad, as No. 1, at the five forks (679) three-quarters of a mile west of us.

Corporal C, with J, K, and L, as No. 2, at the crossroads (648) 500 yards west of this point.

M, with the remainder of Corporal's C's squad, as No. 3, at the roadfork (621) on the Carlisle Road.

Corporal D with N, O and P, as No. 4, at the railroad crossing in Goldenville.

Lieut. B with the 4th platoon will relieve Lieut. X at the Hamilton farm, a mile and a quarter south on the Carlisle Road. The mounted orderly will remain all night with this post for messenger duty. Get flag communication also with hill 707. Send small patrols as far south as Boyd S. H.

Lieut. R. (M. Gun Platoon) will reconnoiter positions on hill 707 for sweeping the approaches from the south.

Corporal R will take four signallers to the hill top (707), and establish communication with Texas, each of the outguards, and Lieut. B's detached post.

The captain then conducted the company and the machine gun platoon to the north side of the small grove northeast of hill 707. Arms were stacked. One observer with glasses was put on the house, with a messenger below. The animals were taken, one-half at a time, to water west of Texas. Water for the men was obtained from the farmhouse well, over which a sentry was posted. Fires for cook-

ing were screened in the northern edge of the timber. The captain directed the first lieutenant to make camp, and then explain the situation to the men. The captain, himself, looked over the ground to decide upon positions for defence, and then visited the outguards beginning with No. 1. At each station, he made sure that the men understood the situation, that the outguard was posted to best advantage; he indicated routes for messengers, patrols, and lines of retreat if driven in; and pointing out the station on hill 707, saw that the outguard had semaphore connection therewith.

Returning to the company, he prepared the following report, and the sketch accompanying it (No. 9) :

Co. C, 1st Inf.,
19 June, 4:30 p. m.

Major B:

Outpost as shown on sketch herewith. Detached post at HAMILTON'S instructed to send small patrols to BOYD S. H.

C,

Capt.

This message was delivered by messenger to Major B who forwarded it to Colonel A, adding:

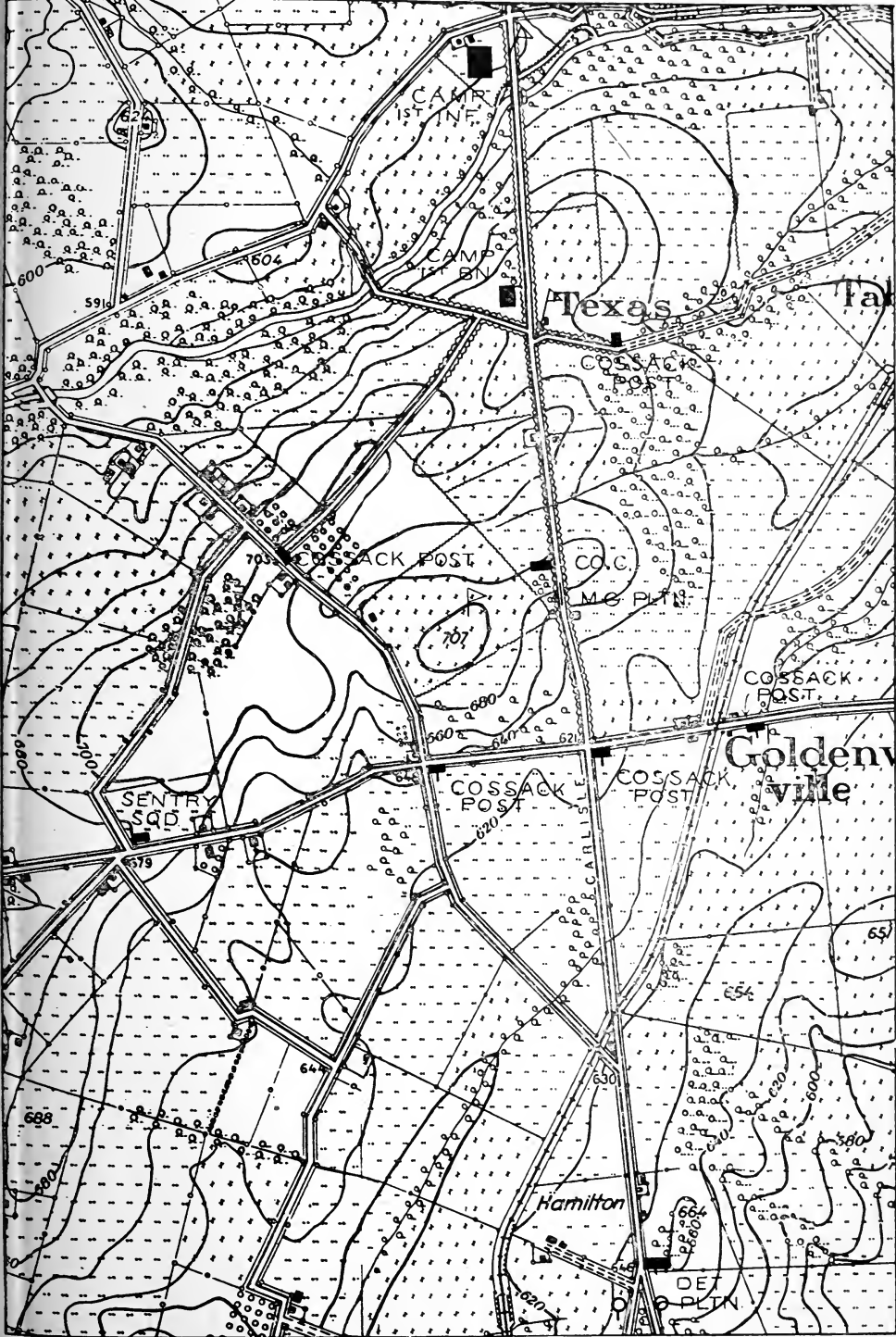
1st Bn. camped in field northwest of TEXAS. Will reinforce C Company in case of attack. Cossack posts east and west of Bn. camp for local security.

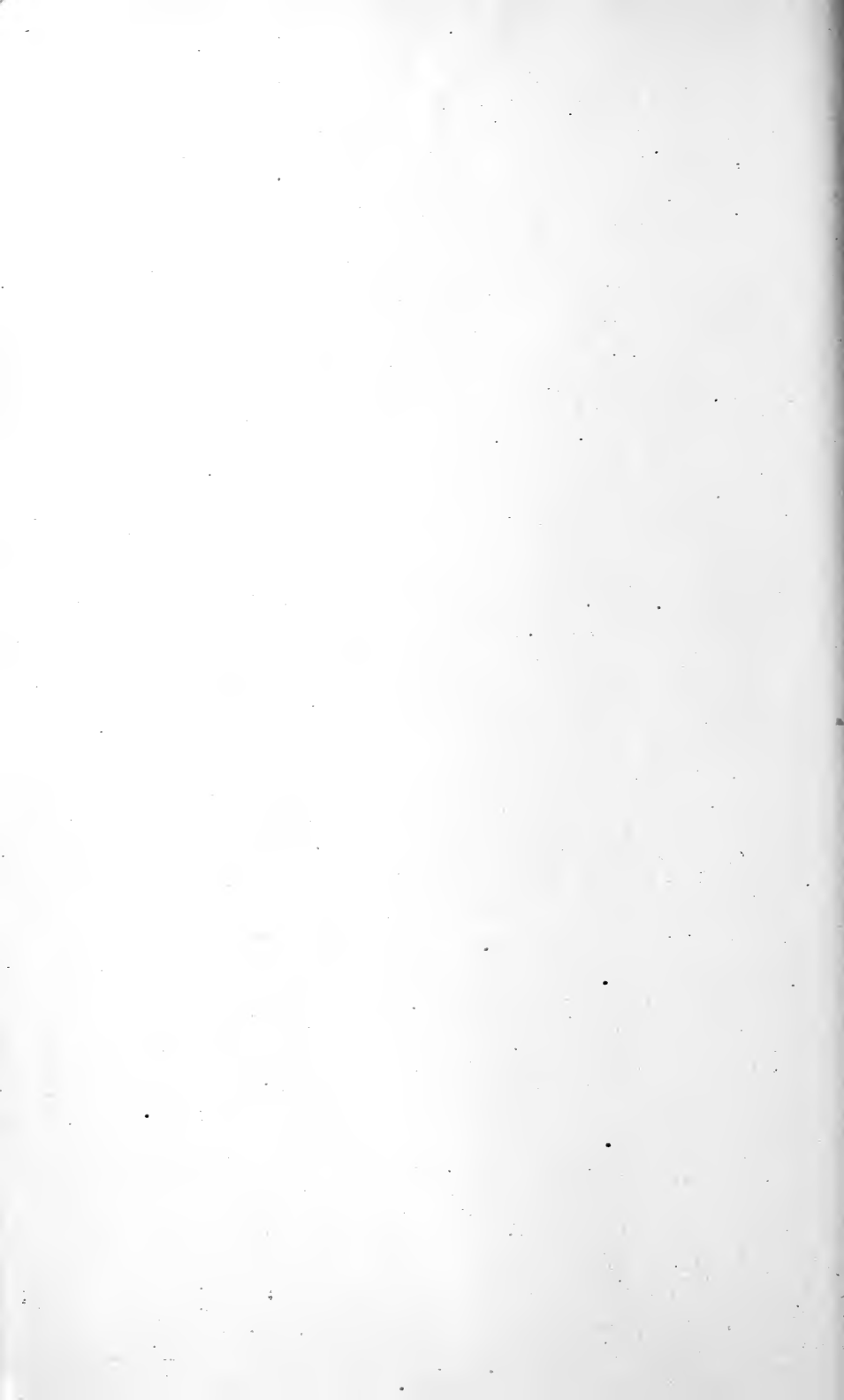
The reserve does no patrolling at all. Until dark none is done by the support. At night one patrol of 3 men goes each hour by Goldenville, crossroads 608, to the east, then towards Gettysburg by the east branch of the Carlisle Road to the farm road, and by knolls 651 and 654 to Hamilton, roadfork 630 and crossroads 648. A second patrol, also of three men, goes hourly by crossroads 648, roadfork 644, five forks 679, and roadfork 703.

The machine guns are on the Carlisle Road during the night.

On the night of the 17th, with a beaten enemy in front, one company, or less than one-twelfth of the regiment, constituted its outpost. Tonight, in a retreat, and with a numerically superior enemy in front, considerably more than one-third of the regiment is on the duty of security. But even in this case only one company, the one in support, is actually losing much rest, and of it, only about one-third of

SKETCH NO. 9. Dispositions Night June 19-20.





its members are on duty at a time. The three companies and a half at Texas will have about as good a night as those in the regiment north of the Conewago. But their presence there, with a comparatively short distance to go to reinforce the company in support, adds very greatly to the security of the remainder of the regiment, and to the prospect of holding the position south of the Conewago. From these examples, it is evident how little any set forms or rules can be applied to the dispositions of outposts, but on the contrary, how absolutely these must depend upon the circumstances of the particular case.

Sanitary Arrangements

When the regimental surgeon received the information of the advance of the hostile force from Emmitsburg, he immediately requested that all civilian transportation that could be collected, be ordered to report at the County Almshouse at 6:00 a. m., June 19th.

On the morning of June 19th, one medical officer and six men were left with the wounded thereat, and with the approval of the colonel, the regimental surgeon distributed the remaining personnel as follows:

One medical officer with the 1st and 2d Battalions.

Two enlisted men with each company on the line.

He, with the remaining two enlisted men, and the pack mule loaded with supplies necessary for an aid station, halted at E. Trostle. No aid station would be established at that time.

The three ambulances and the combat wagons were ordered to proceed to the Central Square, Gettysburg. When the band reported, he sent the principal musician and 9 men to report to the officer left in charge at the temporary hospital to assist in moving the patients, when evacuation became necessary. Of those remaining, 10 men were ordered to report to the surgeon of the 2d Battalion and 8 men he retained at regimental headquarters.

When word was received that no more trains would come through to Gettysburg, the regimental surgeon immediately sent orders to the officer in charge at the County Almshouse to evacuate to Holly Springs, in the impressed

transportation, all patients able to travel, leaving with the non-transportable cases only sufficient personnel to care for their immediate wants. (Nearly all of the wounded on the 17th, of course, went out by rail on the 18th).

The surgeon, himself, remained with the regimental commander, but ordered two ambulances to advance to the 2d Battalion, as safety would permit. The remaining ambulance he ordered to E. Trostle.

As soon as the 3d Battalion, in its retirement, reached the latter place, the wounded who had been brought back with the command, were loaded in this ambulance and it proceeded north in advance of the retreating force.

On the retirement of the 2d Battalion, all wounded who could be transported were placed in the two ambulances with that section of the command.

The six men of the band and six sanitary soldiers, then on duty with the 3d Battalion, were ordered to report to the surgeon of the 1st Battalion.

When the outpost line was formed that night, the sanitary personnel on duty with the 1st Battalion, remained with the battalion headquarters at Texas.

Comment

The advance of the new Red force immediately aroused fears for the safety of the remaining wounded of the 1st engagement; and the regimental surgeon had to make provisions for their evacuation by road. Of course, he could transport a large number on the combat wagons, etc. belonging to the regiment, but he desired to keep them as free as possible for the probable additional wounded expected.

The assignment of the sanitary personnel to the different elements of the intrenched command was made in such a way, that each company would be provided with sanitary assistance. With such distribution, it was, of course, impossible to remove some of the wounded from the field, but at least they received first aid treatment.

The regimental surgeon, himself, remained at headquarters, but this location was such, that he also acted as surgeon of the 3d Battalion.

The band was distributed in such a way that their services as litter bearers could be employed to the best advantage. The ambulances and wagons, being placed in Gettysburg, were out of danger during the actual fighting and were so placed, that they could be sent to either flank without delay.

No aid station was established, as the line was so located that no one point could be selected for this work. The battalion detachments had to collect the wounded to such points as were convenient to the actual firing line.

The regimental surgeon by ordering the immediate removal of the wounded by road, as soon as he was informed that the railroad was interrupted, provided for their safety; and at least all of the transportable cases could be removed to the rear. Every effort must be made to prevent wounded from falling into the hands of the enemy. The necessary attendants for wounded unable to be moved, must always be provided for before a retirement takes place.

By reinforcing the sanitary personnel with the 1st Battalion, provision was made for the care of the wounded in the section of the command which was most liable to be engaged on the retreat. A larger number of men than is normally provided for was detailed, so that all the wounded possible could receive first-aid and be removed from the field in advance of the rearguard.

Part II—A Battalion of Infantry

ESCORTING A CONVOY

On May 5, a Blue Army moving northeast in hostile territory has reached the line Hunters Run—Newville (Sketch No. 10), where it is confronted by the main Red forces.

A depot for the service of the Blue army's right is being established at Center Mills. The 1st Battalion, 1st Blue Infantry, has been collecting supplies therefor south-east of Littlestown. It camped for the night of May 5-6, about 9:00 p. m., near 558 W, north of Littlestown, with a hundred impressed and heavily loaded wagons, whose poor teams are practically exhausted. Recent heavy rains have put all roads in bad condition. That of the Baltimore Turnpike is exceptionally poor. Its bridge over Rock Creek is out. The nearest Blue troops are at Center Mills. The battalion came to Littlestown from Center Mills by way of Hunterstown and Boneauville.

The feeling of the inhabitants is bitter against the Blues. Numerous small partisan corps exist. Otherwise, except for a garrison at York, no Red troops are known to be nearer than those of the main Red army.

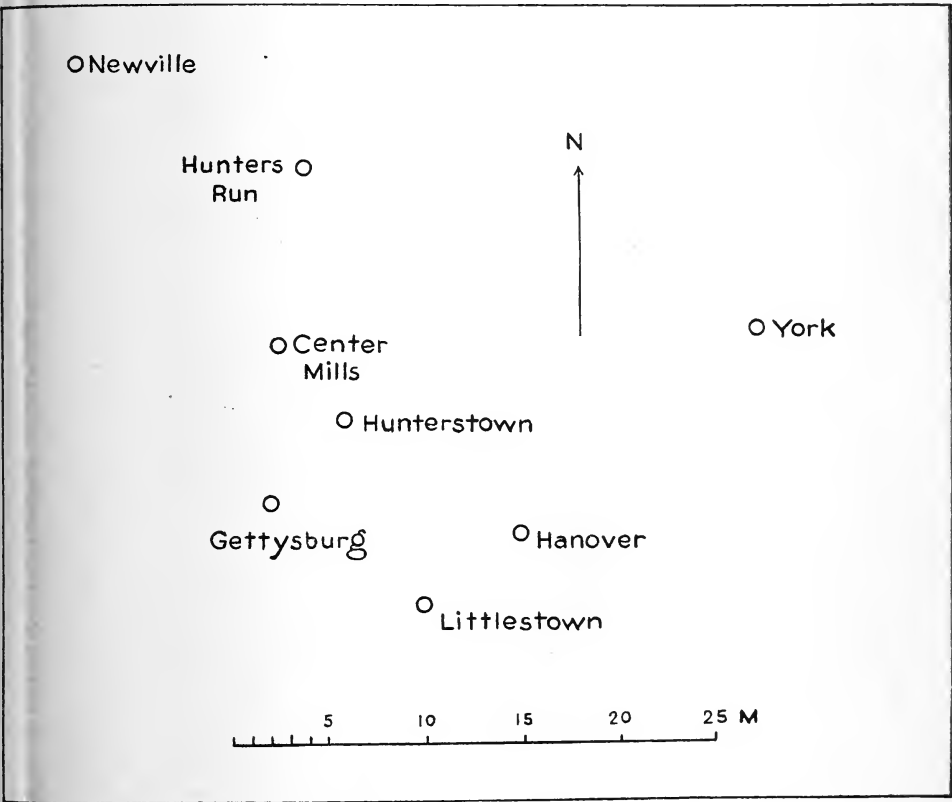
About 10:00 p. m., Major A, commanding the battalion, learns that a Red battalion marched in from Hanover and camped at Brushtown late in the evening.

Battalion Commander's Estimate of the Situation

Major A was sent out to bring to Center Mills such supplies as he could gather. He intends to accomplish that mission if it is practicable to do so.

In country exceedingly hostile to the Blues, the Reds are, without doubt, well informed of the Blue battalion's movements. Consequently, the Red detachment at Brush-town, very probably, has for its mission the capture of the

SKETCH NO. 10.





Blue convoy. That battalion may be alone, or it may be the advance of some larger command. But at best, if the battalion is operating alone, the Reds have still a very considerable advantage over the Blues, hampered as the latter are by their slow moving and unwieldy convoy.

From Brushtown by Felty S. H. to knoll 647, northeast of Pleasant Hill S. H., is three miles; by crossroads 601 to the Small farmhouse, east of Whitehall, is about $3\frac{1}{4}$ miles; by Square Corner to the roadfork north of the Shebley farm is about 4 miles; and to the houses midway between Square Corner and Boneauville is also about 4 miles. With Red troops at any of these points, the convoy could not pass on the Pleasant Hill S. H.—Boneauville road. On this road, from 558 W to roadfork 598 is one mile; to Whitehall is $2\frac{1}{2}$ miles; to roadfork 637 is slightly under $3\frac{1}{2}$ miles; and to Boneauville is $4\frac{3}{4}$ miles. The convoy is roughly a mile long.

If the enemy starts at the same time as the convoy and goes at the same rate, marching by Felty S. H., he will reach knoll 647 twenty minutes after the tail of the convoy passes roadfork 598; marching via roadfork 606, he will reach knoll 607, southeast of the Small farmhouse, five minutes before the convoy's tail enters Whitehall; via Square Corner, he will reach the roadfork northeast of the Shebley farm a few minutes before the tail of the convoy passes roadfork 637; via Square Corner again, he will reach the houses midway between Square Corner and Boneauville while the head of the convoy is still east of Sweet Home S. H. The enemy's best route for cutting off the convoy is, therefore, via Square Corner on Boneauville. Since this hostile action promises most trouble for the Blue battalion, it is well for Major A to make his own dispositions with it primarily in view.

Now, all of these calculations are based upon the assumption that the convoy and the Red battalion start at the same time and proceed at the same rate. But Major A is well aware that the enemy, with a single unencumbered battalion in friendly territory, may start at a very early hour, or may, in fact, make a night march; and when started, the Red battalion should march very much faster than the scratched up and unwilling train in his charge. Notwith-

standing the bad condition of the roads, the Reds are likely to do a full three miles an hour, while the convoy is having great difficulty in doing two. From all of these considerations, it is evident that, if the enemy's objective is the convoy, the latter can hardly continue by Boneauville, without finding some means for delaying the enemy east thereof.

The first idea of Major A is to hook up and pull out at once; but that plan has to be rejected immediately. His animals are nearly exhausted. Some hours' rest must be permitted before they start once more with their heavy loads through the mud. Moreover, the difficulties of a night march, even if the teams could stand it, would be almost insurmountable, through the favorable conditions extended by darkness for intentional delays and impediments upon the part of the impressed teamsters. To go at once is out of the question. But on the other hand the march must begin in the morning at the earliest practicable hour. Sunrise will be at 5:22; dawn about an hour earlier, or at 4:22. To get teams ready requires the men to be up from an hour to an hour and a half before the starting time. To move much before dawn would be very difficult with such a convoy. Major A accordingly concludes that 4:00 o'clock is the very earliest practicable hour.

If the convoy goes by Boneauville, the Blue battalion will probably have to fight to obtain the time required for the convoy's escape. Can any other route be used that will avoid the necessity for fighting? The Baltimore turnpike is impracticable. If it were not, since the convoy is only half a mile nearer the center of Gettysburg than is Brush-town, the Reds could easily cut it off at that point. Any route south of the Turnpike adds to the length of the detour. Any such route would probably also be found in worse condition than the turnpike, and the farther down Rock Creek a crossing is attempted the greater the chance there is of hinderance by broken bridges. While broken bridges would stop the convoy, they would have little effect upon the pursuing Reds, who could undoubtedly cross almost anywhere.

To send the convoy by Germantown, Two Taverns, and the Low Dutch Road, while marching with the greater part of the battalion by Whitehall and Boneauville, if the roads

were good, at first sight would seem to offer a chance of escaping without a fight. But the Baltimore Turnpike is known to be in particularly bad condition. It crosses three considerable streams, Alloway and Plum creeks and Littles Run. The Low Dutch Road crosses a fourth. Each of these is an argument against the use of that route. Major A came down by Boneauville and Whitehall. He knows that road, and can make a pretty good estimate of its present condition. It runs along a ridge, crossing the streams near their sources. It should consequently suffer comparatively little damage under the rains, and its surface should dry out quickly. Major A would hardly dare to start his convoy over the Baltimore Turnpike—Low Dutch route without previous reconnaissance. That reconnaissance perhaps could be made tonight by one of his staff officers; but even if the partisans permitted the officer's return, there would be little left in his horse for the necessarily hard work of tomorrow.

To the junction of the Low Dutch and Hanover roads, by Germantown and Two Taverns, from the convoy's camp is about $8\frac{1}{2}$ miles. To the same junction from Brushtown is less than 7 miles. While the distances to Boneauville, from the Blue and the Red camps, slightly favor the Blues, these distances to the junction of the Low Dutch and Hanover roads are considerably against them. The route by Germantown and Two Taverns would consequently require the enemy to be engaged by a delaying force for a much greater period.

Another disadvantage of the Low Dutch route is the fact that for some hours the convoy, and the bulk of the battalion marching by Boneauville would be separated by several miles, which in this very hostile territory might lead to the convoy's destruction by partisan corps.

There are no continuous intermediary routes to consider.

Has Major A a reasonable prospect of getting by Boneauville with his convoy? For, if the convoy does not get by Boneauville without meeting the enemy, it will not be in much danger of being caught thereafter. Starting at 4:00 o'clock, and averaging two miles an hour, the convoy, having

4 $\frac{3}{4}$ miles plus its own length, one mile, or 5 $\frac{3}{4}$ miles to go, will clear that village a few minutes before 7:00 o'clock. If the enemy also starts at 4:00 o'clock his advance, if uninterrupted, would reach there, at 2 $\frac{1}{2}$ miles an hour, at 6:00 o'clock. For the convoy to escape, the enemy, therefore, must be delayed for something over an hour at the very least. Can this be done?

In answering the question it is necessary first to find out what Major A will have for a delaying force; and this requires the determination of the number of men that must be left directly with the convoy. The convoy is divided into four sections of 25 wagons each. Starting before daylight, every single driver must be carefully watched, or some will find means for seriously delaying the march. This requires a soldier for each wagon, or 100 men for this duty alone. Then each section should have in addition at least one squad. In furnishing the wagon sentries, the service squads of the companies—the quartermaster sergeants, cooks, clerks, and artificers—are available, and will help to the extent of some twenty men altogether. By using these men, it is evident that a single company might furnish the police details enumerated above and in addition scratch up a couple of squads for the absolutely necessary advance and rear guards. Detailing one company only with the convoy would, however, leave the troops with it available for security entirely too few, and nothing in reserve for meeting an emergency. There must be something at hand to meet the unexpected, otherwise delays in the convoy's march are almost certain to occur. Major A believes it better therefore to detail one company plus a platoon of another as the immediate escort.

That leaves 2 $\frac{3}{4}$ companies to be thrown towards the enemy to hold him up for something over an hour. If he has only four companies, and the Blue companies can get between them and the convoy and have room for one or two delaying actions; to gain the required time should not be found impossible.

Having decided to interpose the bulk of the battalion between the enemy and the convoy, the first objective and the route thereto must be selected. For the battalion to march by Felty S. H. on A. Rifle would be to run the risk of

the enemy's passing A. Rifle first, when Major A would find the enemy between him and his convoy. Moreover, Major A does not wish to get any closer to Brushtown than is absolutely necessary, because the chances of a fight are constantly increasing as he approaches that village, and he does not want to fight if a fight can be avoided. If the Blue battalion were to select the route at the other extreme, by Whitehall on Square Corner, the enemy might pick up the convoy behind the battalion by a march directly on Whitehall. This might also happen if the battalion, marching by roadforks 610, 611, 606 and 609, were to continue on to crossroads 601. But if the battalion marches to crossroads 609, near the Font farmhouse, and waits there in readiness, it will be able to stop the enemy if the latter marches by crossroads 601, or can quickly oppose him if he marches south by Felty S. H., or west towards Whitehall.

Crossroads 609 can be reached in a few minutes over an hour. While the animals of the convoy are desperately tired, the men of the battalion are not necessarily so, and anyhow, they can be counted on to recuperate more rapidly with a little rest. The battalion, therefore, can start considerably before the convoy. If it were to start at the same time as the convoy, that is at 4:00 o'clock, it would be 5:00 o'clock before it reached crossroads 609. Meantime, the enemy without an excessively early start could have marched by on the Hanover Road. Three o'clock, therefore, is the latest that the Blue battalion can start and have a reasonable prospect of arriving in time. Any earlier than that hour seems out of the question if the men, who only reached camp at nine o'clock and will have to be up at least an hour before they march in the morning, are to have any real rest.

Having considered all the ways of escaping with the convoy, Major A now asks himself: Is the convoy worth the necessary sacrifice? Saving the convoy almost certainly means an engagement with the enemy; and an engagement, no matter how well conducted, means the loss of valuable lives. Are the stores worth so much? Would it not be better to destroy the convoy, and then with his unencumbered battalion quietly slip away to the west? The major answers, No. The depot must be established, and supplies therefor

must be gathered. If a collecting detachment stops its work and runs every time an enemy threatens to interfere, not many supplies will get into the depot, and no very high opinion of Blue courage will be formed in the minds of the enemy. The major may yet come to the destruction of the convoy, but not until he has at least made an attempt to get away with it.

Whether any troops are back of the battalion in Brush-town must be learned, and the enemy's movements must be watched. It is, of course, particularly important to know when and in what direction he marches. Major A has only the prescribed battalion mounts with him. These should be fresh tomorrow to perform the important duty of maintaining communication between the battalion and the convoy. There is nothing left but a dismounted patrol; and notwithstanding the great distance to the hostile camp, a dismounted patrol will have to be sent.

Major A expects to divide his command, tomorrow, into two main detachments: a right flank guard, and the convoy itself. If the whole command were larger, it would probably be better for Major A to appoint a commander for the flank guard, and content himself with the general command of the two detachments. But he will, in any event, be with the flank guard as the more important detachment and, while there, he prefers to retain the command in his own hands rather than to detach a captain therefor from that officer's company.

His decision consequently is:

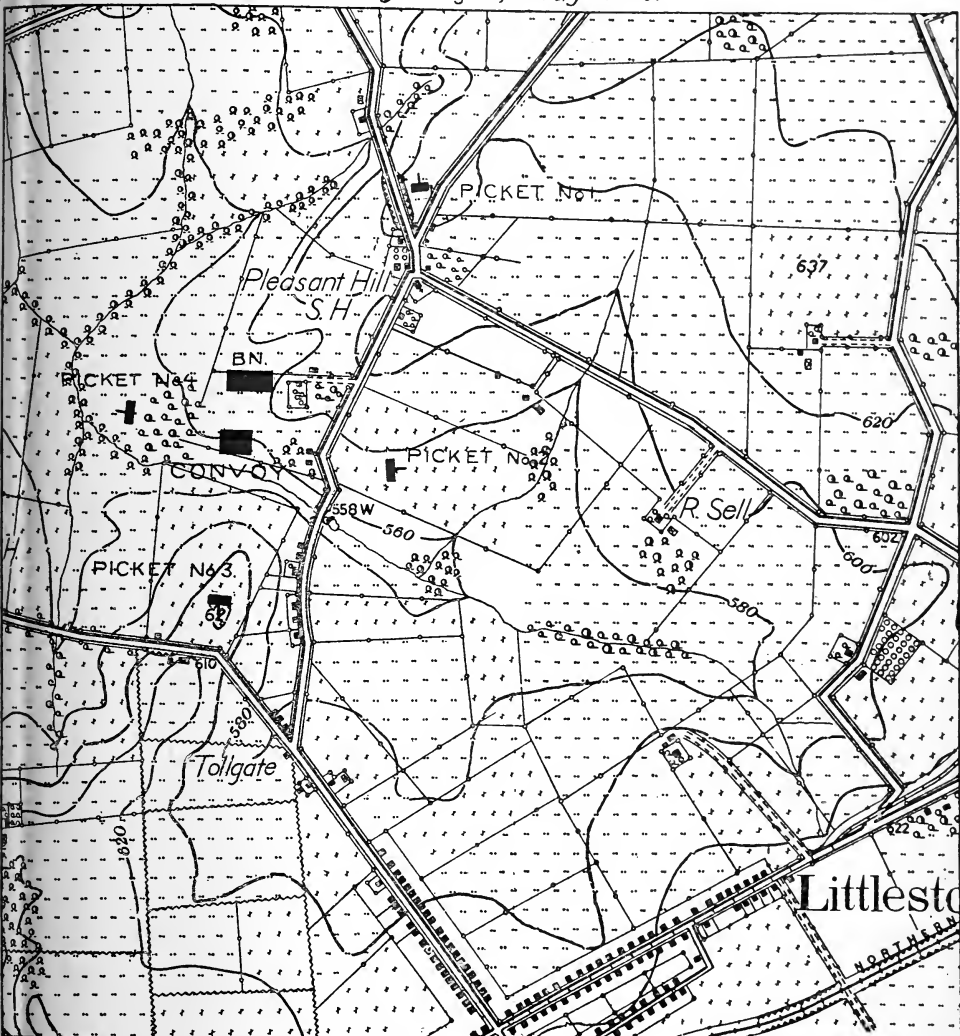
Three companies (less 1 platoon) to march at 3:00 a. m., via roadforks 610, 611, 606 to crossroads 609;

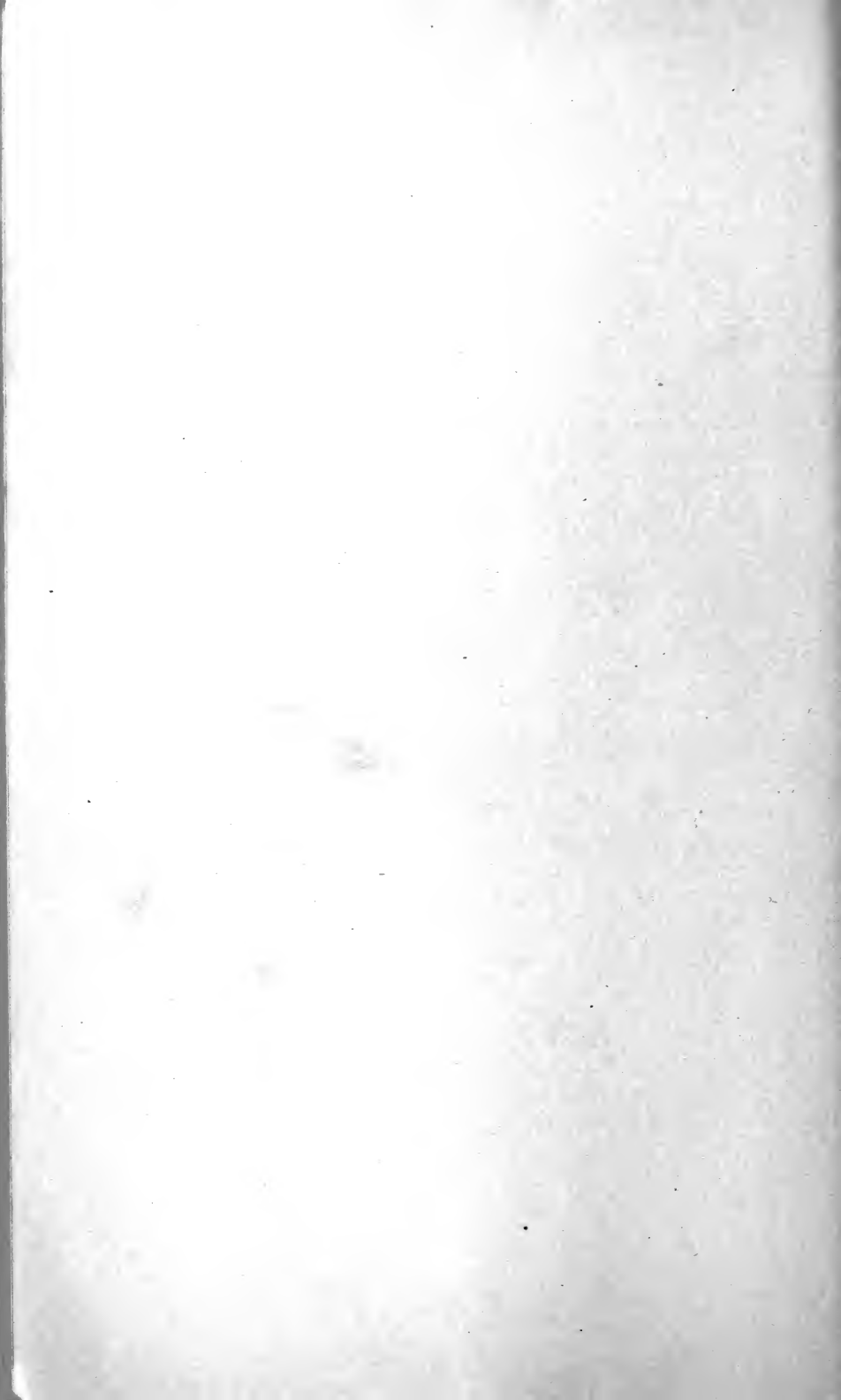
The convoy, under the immediate escort of $1\frac{1}{4}$ companies to march at 4:00 a. m. via Whitehall and Boneauville; To send an officer's patrol at once to Brushtown.

Except to the patrol, no orders will be issued tonight, because the enemy, by a night march, may make all of Major A's intended dispositions impracticable and leave nothing for him to do but turn to the west or destroy the convoy. He will simply have the troops quietly aroused at 2:00 a. m.

Before proceeding with the major's orders, it will be well to see what were his camp arrangements for security.

SKETCH NO. II. Convoy. Night, May 5-6.





A large body of troops obtains most of its security to the flanks by the lateral extension of its outpost line, and frequently by bending it towards the rear. With such extension the detour required for any large hostile body to pass by an extremity of the outpost line and reach the main body is prohibitive. With a small body, however, that detour may not be very great, and for proper protection a small command may, therefore, not simply outpost towards the enemy, but may have to bend back the flanks of that line until it is practically surrounded by its security detachments. In the case at hand, because of the Red partisans, Major A's enemies are on all sides; moreover, he has them in his own camp in the persons of his impressed drivers. When his outposts were established, he knew of nothing to make the direction toward York very much more dangerous than any other.

The wagons of the convoy were in a square, with the poles and animals inside, immediately west of the clump of timber north of 558 W. The square was about one hundred and ten yards on a side. Eight sentries were posted about it. The battalion was camped north of the convoy. Four pickets of two squads each were stationed: one on the nose northwest of Pleasant Hill S. H.; one on the knoll 621, south of camp; one two hundred yards northeast of 558 W; and one west of the clump of timber west of camp. The timber along the stream lines east and west of the camp and Ash Grove S. H. were frequently visited by patrols. One company furnished all details. No change was made in these dispositions after learning of the Red battalion's camp at Brushtown. (See sketch No. 11).

An Infantry Patrol

As soon as Major A learned of the hostile battalion at Brushtown, he directed the captain to send him Lieutenant B of A Company for patrol duty. When that officer reported, the major directed:

A Red battalion came from the east into Brushtown this evening and camped there.

I want you to verify the Red strength, and find out whether they are followed by other troops. Also I particularly want to know when they march from their present camp and by what route.

Select five men from your company to go with you; and get this information.

Messages will reach me at this camp until 3:00 a. m.; after that, with the Battalion which will march at that hour by Pleasant Hill S. H. and roadforks 610, 611, and 606 to crossroads 609.

Lieut. B immediately reported the orders he had received to his captain, and asked by name for a sergeant, a corporal, and three privates. He asked also to have the packs of these men carried the next day by wagon. He caused the men to take their rations, including one cooked meal, and to march in the light kit. In addition to the prescribed equipment, the lieutenant took an electric torch, by which to read his map and write messages. The patrol assembled at 10:30 p. m. The lieutenant inspected to make certain that the mess equipment had been so covered that it would not rattle. He then instructed the men as follows:

10:30 p. m.

A Red battalion camped this evening at Brushtown, about four miles northeast of us.

This patrol is ordered to Brushtown to verify the enemy's reported strength, learn if any other troops are behind that battalion, and in particular, when the enemy marches and by what route.

Messages are to be sent to this camp up to 3:00 o'clock; after that, to the Pleasant Hill S. H.—roadforks 610, 611 and 606 road, along which our battalion marches at that hour.

The lieutenant issued this order with his map spread. He pointed out places and roads as they were named, trying to leave a general idea of the lie of the important roads in the men's minds. He then marched the patrol to the picket north of Pleasant Hill S. H. The picket could tell him nothing new about the enemy. There he said to the members of the patrol:

We will take the road to the right (the one passing over knoll 647).

Sergeant B, with K, will march in advance. I will follow with S at ten paces; Corporal L, with M, will follow as rear point at ten paces from me.

Take about a $3\frac{1}{4}$ mile gait. Move quietly on the side of the road. Be particularly careful when passing houses, the advance leaving the road whenever it seems best, in order to avoid awakening the occupants. Every one should note the roads and landmarks as we go on, so as to be able to find his way back with messages.

The patrol halted enroute from time to time to listen. Communication between its advance guard and main body and with its rear guard was maintained verbally in low

tones. At crossroads 633 the lieutenant halted, passed the word for all to join him, then directed:

We will move down the right-hand road to the east about a mile and a half until we reach the Littlestown—Hanover Electric road.

Three improved roads branch off before coming to the electric. The first one goes to the north a few hundred yards from this point; the second one to the south a half mile out; and the third, near the electric, to the north.

About half a mile west of us is a road which, with several big jogs, runs generally north and south. Our battalion marches by that road in the morning. Note the surroundings, as messages may have to be delivered to the battalion while thereon.

Except for the excitation of some dogs, the march of the patrol to the vicinity of the electric road was without incident. In two or three places enroute where the telephone lines could be reached they were cut. At the electric, the lieutenant, about 11:30 p. m., halted his men long enough to bring Sergeant B back, to direct him to take the railroad tracks to the vicinity of the Little Conewago, nearly a mile to the northeast. 11:30 p. m.

Opposite 525 W, the lieutenant signalled to move to the left of the railroad. Then he halted the patrol, whose members immediately kneeled or sat down, and going quietly up to Sergeant B, in a low tone directed:

The railroad bridge is probably occupied by the enemy. Work quietly over with K to find out. Don't be gone more than fifteen minutes. I'm going to send Corporal L to investigate the wagon bridge east of us. I'll remain here then until you return.

He then dropped back to the rear point and gave its corporal similar instructions for the investigation of conditions at the wagon bridge. The sergeant returned shortly and reported:

There are several men on the east end of the bridge. I could not see anyone, but I heard movements, and some talking. The stream seems to be twenty to thirty feet wide, and has a sandy bottom. I didn't go into it to learn its depth.

Corporal L also reported that 525 W was occupied by at least a squad. He had seen seven or eight men and heard a little talking. There was nothing to indicate that either the sergeant or the corporal had attracted the enemy's attention. The lieutenant then directed:

We will move down the stream three or four hundred yards below the railroad bridge, and ford it.

12:10 a. m. No particular difficulty was experienced in effecting a crossing of the stream, which was found to be about waist deep. At 12:10 a. m., the patrol was in the timber just east of the stream, with the point at the timber's eastern edge, some thirty or forty feet in advance. The private of the point came back to the lieutenant to report: Some men are coming through the field to our left. The lieutenant directed his men to remain absolutely quiet where they were, while he went up to the point. There he watched three Red soldiers file by a few feet outside of the timber and disappear in the direction of the railroad bridge. Needless to say, no effort was made to capture or molest any of the Red patrol, for firing or even shouting or a struggle, would have attracted attention to the presence of the Blue patrol, which, of course, was about the last thing desired by Lieutenant B. Even if it had been possible to make a certain capture of all three Reds without any commotion, nothing would have been gained to offset the burden so acquired. He then said to the sergeant:

We are evidently on their outpost line. Brushtown lies about off there (pointing) and cannot be far away. We will go ahead in that direction, as quietly as possible.

After proceeding a few hundred yards, they caught the sheen of some small fires behind scattered buildings immediately ahead, and the outlines of a grove of trees to the left (those west of roadfork 547). The lieutenant turned the patrol towards the timber and halted fifty yards outside, while the point went in to learn whether or not it was occupied. Upon its report of no enemy therein, the patrol took station in the southwestern corner. The lieutenant then directed the sergeant:

Take charge of the men here. Post one man in observation to the south, and keep everyone alert and quiet. Those fires are probably at the Red camp. I am going to take L with me to find out. If we don't return in half an hour, you will proceed to learn whether there are any other Red troops between Brushtown and McSherrystown; and then return to watch this camp and report when and how the Red battalion marches tomorrow. When we come back one of us will halt out there (pointing south) and whistle so (illustrating). Answer by a low whistle.

Then to L, who had heard the directions to the sergeant: Follow me at about seven paces.

The lieutenant moved rapidly, generally in a crouching attitude, but halting every few minutes to watch and listen for hostile sentries and patrols, by a route to the south, and well outside of the Brushtown enclosure. He distinctly made out four company streets, and as many vehicles, south of the V shaped streets of the village. One sentry was seen in the street west of the camp, and one south of it. He continued far enough to the east to make certain that all of the camp south of the Hanover Road had been seen, and then north across that road until he was sure there were no fires towards the west. A faint moon, which came up about 12:40, helped in this reconnaissance. Returning then by the same route to the remainder of the patrol, which had not seen or heard anything during his absence, the lieutenant wrote the following message, lying flat on the ground, well within the wood, and screening his electric torch by several hats:

No. 1
200 yds. west BRUSHTOWN, 1:00 a. m.
6 May, 1:00 a. m.
4 companies are camped in angle streets BRUSHTOWN. No other
Reds immediate vicinity. No indications yet of an early march.
B,
Lt.

This was read to M and K. The lieutenant then directed M:

You M, in charge, and K will take this message to Major A. Go back to camp by the route we came. You should reach camp before the battalion marches out at 3:00 o'clock. Tell the Major I am going east from this point to see if there are other Red troops following this battalion.

Because of the possibility of the message falling into the hands of the enemy, the sending detachment was not named therein, nor any address given, and the lieutenant did not put his further intentions in writing. Two messengers were sent. One alone, with such a distance to go in very hostile territory, would have too small a chance of getting through.

The lieutenant said to the remainder of the patrol:

We will now go on to the east to find out whether there are any other troops behind these. Sergeant B, move ahead as the point. Pass the Red camp about 300 yards to the south. They have a sentry in the street east of us, and one immediately south of their camp. S and I will follow you at 10 paces. Corporal L will follow us at the same distance.

East of Locust Grove S. H. the patrol took the Brush-town—McSherrystown road. The outskirts of McSherrystown were reached without discovering any indication of other enemies. The patrol then returned by the same route to the timber west of Brushtown, where it arrived at 2:30 a. m.

The patrol had obtained some negative information of value, i. e., that there were no other troops east of Brushtown at a distance to be expected if the Red battalion were simply the advance guard of a larger body. Shall the patrol leader send this in at once, or wait until he has learned something to indicate when the enemy is going to march? His patrol is, of course, in a very dangerous situation. Its presence may be discovered at any moment, and the entire patrol may be captured, with the result that its news never gets back. But under the conditions no message can be carried by less than two men, and there are now only four left in the patrol. He has two important bits of information yet to obtain, when the enemy marches, and his route. Each of these will probably require a separate delivery, and such can only be made if he does not now weaken the patrol's numbers. If the enemy is going to move at all near dawn, his camp must soon be astir. The news then of his preparations for marching and that no other Reds are near Brushtown can be sent back in the same message. The lieutenant decides to keep the entire patrol together a little longer in the wood west of Brushtown.

Within a few minutes after half past two, it was evident that the fires were being rebuilt. The patrol believed the Red cooks were at work.

At this time the patrol was lying in the southeastern corner of the wood, with the leader watching towards camp, and a sentry in observation of the ground to the south. Men were heard approaching through the timber from the northwest. From the sounds, they seemed to be only two

in number, to be somewhat intoxicated Red soldiers, and in some uncertainty as to where their camp lay. The sergeant suggested that these men were probably unarmed, could easily be captured without noise and could furnish considerable information. The lieutenant promptly vetoed the proposition. While he would like to question the men, the chances of capturing them without attracting the attention of other Reds were too small, and the difficulties of disposing of them thereafter were too great. He therefore got his men to their feet and under cover close together, with instructions that he had no intention of bothering the Reds unless they noticed the Blue patrol; therefore the men would remain absolutely still except at his command, when the two Reds were to be jumped and secured by hand as quietly as possible. Fortunately, the Reds managed to find their way out of the wood without actually stumbling upon the Blue patrol.

By 3:00 a. m., it was evident that the Red camp had been aroused, and that the men were striking tents and getting ready to march. But to make certain that the latter was the case, Lieut. B remained in observation till about 3:20. Then, since his messengers would have little chance of getting through the enemy's outpost after daylight, he decided to take the whole patrol to ground more favorable for escape, west of the Little Conewago, and send the information so far obtained back to Major A. 3:00 a. m. 3:20 a. m.

Accordingly, he started back along the rail fence leading to the southwest, with the sergeant seven or eight yards in advance, and the corporal as many yards in the rear. The lieutenant and Private S constituted the main body. Nearing the southwestern end of the fence, the sergeant suddenly crouched and a moment later told his officer that several men, moving north along the timber from the south, were then immediately in front of the Blue patrol, while another party coming from the north was within a hundred yards of them. Some movement of the patrol in the moonlight must have attracted the Red attention, for there was a challenge from the party in front promptly followed by a shot. The lieutenant signalled the corporal to come up, and then in low tone said: We'll charge these people in front

and assemble west of the Conewago. Don't shout. A few seconds after the hostile shot, the Blue patrol, as skirmishers at two or three yards, went forward at a run, without shouting, broke through the Red patrol and kept going till the men were across the stream. In the open field west of the Conewago, and south of the small stream that joins it a half mile from the Hanover road, the patrol assembled. The sergeant was absent. After calling for him a few times, the lieutenant decided he could not delay any longer, since the enemy's patrols appeared to be searching the whole neighborhood. So he directed:

We will cross this stream (the small one half a mile south of the Hanover road), and move rapidly across country due west. Corporal L will lead, I will follow him, and S will come last. Take five paces between files.

4:00 a. m. At four o'clock, the patrol reached hill 607 between the Rebert and G. Martz farmhouses, where one man took station, while the lieutenant, assisted by the remaining man in the timber west of the hill's crest, wrote the following message:

No. 2
Hill 607, n. e. FELTY S. H.,
6 May, 4:05 a. m.

My No. 1 reported 4 Red companies at BRUSHTOWN. These started to break camp about 3:00 a. m. Have been into outskirts MCSHERRYSTOWN. No indications Red troops beside battalion at BRUSHTOWN. Remain here in observation. My signal "N" will mean enemy takes HANOVER road, "S" he goes by FELTY S. H.

B,
Lt.

Lieut. B repeated the information of his first message, because very possibly his messengers did not get through. He then took the patrol due west into the open field north of the H. Felty farmhouse, pointed out to the corporal the direction of crossroads 609, and directed him to deliver the message to Major A, who should appear very soon in that neighborhood with the battalion. After a few minutes he returned with Private S to hill 607. There the lieutenant climbed a tree near the crest, and as soon as it grew at all light began searching with his glasses the ground to the east. He quickly made out the Red battalion on the Hanover road. By 4:25 a. m., its advance guard was a hun-

4:25 a. m.

dred yards west of the A. Rifle roadfork marching toward Square Corner. It being still too dark to signal crossroads 609 from his tree, the lieutenant, leading the private by ten yards, started at a steady double for crossroads 609 through the field north of H. Felty. Northwest of that house he was able to get his semaphored "N" acknowledged from one of the buildings at the crossroads.

Orders, Battalion Commander

Let us now go back to the battalion near Littlestown. Major A had the cooks awakened, breakfast started at 1:30 a. m., and the battalion awakened at 2:00 o'clock. The adjutant personally gave the following order to each company commander and to the quartermaster:

The Battalion (less Company D) will march at 3:00 a. m. D Company and the convoy at 4:00 a. m. All preparations will be made with the least possible noise. The major will issue orders at 2:30 a. m.

At 2:30 a. m., the major issued to his captains and staff, verbal orders as follows:

A Red battalion came into Brushtown from the east last evening and camped at that place.

Lieut. B started for Brushtown at 10:30 p. m., in charge of a reconnoitering patrol.

This Battalion (less Company D and one platoon of Company C) will march at 3:00 o'clock on crossroads 609, to cover the passage of the convoy by Whitehall and Boneauville.

Lieut. X (the Bn. Adjt.), with my orderly, will proceed rapidly by Felty S. H. towards the A. Rifle farm. I want the earliest possible information whether the enemy turns west or south at the A. Rifle crossroads.

Company C (less one platoon) will constitute the advance guard, marching by Pleasant Hill S. H. and roadforks 598, 610, 611, and 606. C Company will send one platoon to report to Captain D for duty with the convoy.

Companies B and A, in the order named, will follow the advance guard at 300 yards.

The convoy, directly escorted by Company D and one platoon of Company C, will march at 4:00 o'clock by Whitehall, Boneauville and Hunterstown. The march of the convoy will be expedited in every possible way. Let me know promptly when the convoy passes Whitehall and again when it passes Boneauville. Captain D will take the horse of the battalion adjutant's orderly.

The field train will march at the head of the convoy.

I will be between the advance guard and the main body.

We will form the battalion at 2:55.

When the companies reported at 2:55, the major directed C Company: Get your distances, and take up the march.

A Company as Advance Guard

The captain of C Company assembled his officers and non-commissioned officers and, at 2:40 a. m., ordered as follows:

A Red battalion came into Brushtown from Hanover last night and camped in that village. We have two reconnoitering patrols out in its direction. The convoy marches on Boneauville at 4:00 a. m. escorted by Company D and one platoon of this company. The remainder of the battalion marches to the north to cover the convoy.

This company constitutes the advance guard.

Lieut. R with the 1st squad as the point will precede the remainder of the company by 150 yards. March by Pleasant Hill S. H. and roadforks 598, 610, 611 and 606 (pointing out the route on the map).

Sergeant K (left guide) will be on the alert for signals from the rear.

Sergeant M with the 3d Platoon will report to Captain D for duty with the convoy's escort.

Chiefs of platoon will tell the men of the situation at the first opportunity.

The company will be formed 7 minutes before 3:00 o'clock.

All distances were shortened because of the darkness.

When the major directed that the march be taken up, the captain ordered the point to move out, following it by connecting files at every thirty yards. The company marched as soon as the point had its distance.

Arrangements and Orders, Commander of the Convoy

Captain D made sure, at once upon receipt of his orders, that the battalion quartermaster, who was in direct charge of the convoy, had provided all necessary arrangements to have it ready by four o'clock, including continual inspection to prevent intentional delays on the part of the teamsters. The convoy was parked in a square, each side formed by a section. The First section was on the north side; the Second on the east; the Third on the south; and the Fourth on the west.

The captain sent for his officers and sergeants, who were pretty well scattered among the pickets of the outpost. Sergeant M reported with his platoon from C Company.

3:20 a. m. Verbal orders were issued at 3:20 a. m., as follows:

A Red battalion, coming from the direction of Hanover camped last night at Brushtown, about $3\frac{1}{2}$ miles northeast of us. Our battalion (less this company and a platoon of C Company) has gone to a position a mile northeast of Whitehall, from which to cover the passage of the convoy.

We escort the convoy by Whitehall and Boneauville on Hunters-town.

The 1st Platoon (it then had two squads near Pleasant Hill S. H.) of D Company, under Lieut A, will constitute the advance guard, preceding the main body by three-quarters of a mile. It will march from Pleasant Hill S. H. at 3:50 a. m. It will station patrols of four men each, successively, on knolls 647 and 627 north of Pleasant Hill S. H., near the Schild farmhouse southeast of Whitehall S. H., and near the Small farmhouse east of Whitehall, to remain until the convoy has passed and then join the rear guard. It will send a patrol of four men to march opposite the center of the convoy by the road roughly one-half mile west of the Pleasant Hill S. H.—Whitehall road.

The main body, in the order: 1 squad of the 3d Platoon of Company C, field train of the battalion, 1st, 2d, 3d and 4th sections of the convoy, and one squad of Sergt. M's detachment, will march from camp at 4:00 a. m.

Details for the immediate guard of sections of the convoy will be as follows:

First Section—Platoon of C Company, and service detachment of C Co. (Q. M. Sergt., cooks, artificer, clerk).

Second—Sergeant K, 5th, 6th and 7th squads of D Company, and service detachment of A Company.

Third—Sergeant L, 8th, 9th and 10th squads (8th and 9th were then in the picket east of camp), and service detachment of B Company.

Fourth—Sergeant M, 11th, 12th and 13th squads (11th and 12th were then in the picket west of camp), and service detachment of D Company.

The non-commissioned officer in charge of each section will be responsible that his section moves exactly on time, and in its proper place. As soon as this order is finished he will locate his section at once. On the road he will require wagons to keep closed at all times. Sections will follow the preceding one at 20 yards. In each section one man will be detailed to walk beside and be responsible for the conduct of each wagon.

The rear guard, composed of the 14th, 15th and 16th squads (the 14th and 15th are now on knoll 621), Lieut. S, commanding, will follow the main body at 1000 yards. The rear guard will send a squad at once to the R. Sell farmhouse to remain there till the convoy has passed Pleasant Hill S. H., and one to relieve picket No. 4 (west of camp). It will have the timber along the stream, heading north of Pleasant Hill S. H., examined immediately.

I will remain here till the convoy is on the road and then ride near its center.

There may be criticism of the above order upon the ground that it trespasses upon the province of subordinates by instructions in too great detail. It is believed, though, that the peculiar circumstances of the case require such detail. The commander of the advance guard is told just where to post and route certain patrols. But it will be noticed that these patrols are to be used not for the ordinary purpose of advance guard patrols, in reconnaissance to the front, but entirely for flank protection, which unless specifically mentioned in the order, the advance guard com-

mander may consider lies outside of his province and is to be attended to by some one else. The matter is of too great importance to have any doubt whose duty it is, and therefore is provided for in the order. Similarly with the rear guard, which is now largely taking over the functions of the outpost until the convoy has cleared camp, there must be no doubt whatever as to who is responsible for security in certain important directions. Finally, the police detachments with the convoy require very definite instructions for the organization of the march in order to prevent confusion in the unwieldy mass of wagons, where experience shows delays are so likely to arise. When the convoy is moving out of park, particularly as in this case before daylight, is a peculiarly favorable time for attack. If there happen to be no Red regulars yet in this vicinity, still some partisans may, very well, be lurking near for a favorable opportunity. Not to give such a chance, the movement must proceed smoothly, upon a very definite and uniform plan throughout the sections, and that, of course, must be the plan of Captain D.

A Battalion in Defense

Major A received Lieut. B's first message from Brush-town just before leaving camp. The second report with its indications of an early Red march reached him near cross-roads 609 at 4:20 a. m. He halted the advance guard company at the above crossroads, except its leading squads which were hurried on to crossroads 601; and caused B and A Companies to close on C Company. About 4:30 a. m., an observation station, on the house north of the crossroads, reported that a Blue officer was running in across the field to the east and had semaphored "N" a number of times. Almost immediately thereafter the detachment of C Company sent on to crossroads 601, opened fire. A few minutes later the battalion adjutant raced in from the east to report that the hostile battalion had turned west at A. Rifle.

The Battalion Commander's Estimate of the Situation

There remains for the major but little time to spend in further consideration of the situation. In fact, immediate action must be taken, for the two battalions, the Red

and the Blue, are already in contact. This does not mean, however, that the major is surprised by the developments of the morning, or has not given the matter of the orders now to be issued, the most careful consideration. In fact, he has thought of little else during the preceding march.

The reports from his patrols, Lieut. B's signals, and the firing to the north indicate the exact situation the major had expected. The enemy's strength seems pretty accurately determined as one battalion; that battalion appears to be entirely alone; and its objective from its early march is evidently the major's convoy. The major's mission is just as definitely to defend the convoy, and get it away, or, if to do the latter is found impossible, then to destroy it. The major, of course, long ago determined to have a try at its defense.

The only question now to be answered is the manner thereof. In answering this he is sorry he has not had a little more time for a daylight reconnaissance of the ground. Had he arrived well before the enemy, he would have taken up a position in readiness with the battalion at this crossroads, while he made a careful personal reconnaissance of the ground to the north, where he knew the enemy was most likely to come; and then back to the southeast, to decide upon his action in that direction if the enemy happened to move that way.

From crossroads 609, the major notes, in the rapidly increasing light, that his map has given a very correct impression of the actual lie of the ground. Before him for three-quarters of a mile to the northwest, north, and northeast are long gentle slopes practically unbroken, except for the two houses in the foreground. Near the 600 foot contour to the east, the ground falls away rather suddenly; and would afford some cover for an attack from that direction.

If the battalion were to continue its march, it could probably get into position squarely across the enemy's line of advance at crossroads 601. A position there, however, has many disadvantages. The field of fire is short because the ground near the stream to the east drops away more rapidly than near 601, with dead spaces, consequently, not far out. Several folds north and south of the Hanover Road

facilitate the covered advance of enveloping columns. The light timber east of Trostle enables an envelopment of the northern flank to get on that flank, and very close at hand under perfect cover. A force enveloping the southern flank would tend to separate the battalion from the convoy and lay the latter bare. Finally the position is a very poor one to withdraw from because of the long glacis-like slope behind it, which would have to be crossed under the enemy's fire. In Major A's situation a position which facilitates withdrawal is of importance, because nothing is gained by continuing the engagement after the convoy has safely passed St. Luke's church.

A much better position is to be found right at hand, one facing northeast at the crossroads 609. It has an excellent field of fire to its front and to both of its flanks. No advance towards Square Corner, except by a wide detour, can be made without attacking it. The road on which the convoy is passing lies directly behind it more than a mile away. Any advance against this position will tend to drive the battalion towards its convoy, and not to separate the two. Withdrawal is made very easy by the groves of timber immediately behind, and the rolling ground and lightly timbered stream lines farther to the west. An envelopment of its left is almost impracticable because of the wide expanse of perfectly open ground in that direction. An envelopment of the right is easier, and would be the natural movement in attacking, unless the hostile battalion advances too far before learning where the Blues have taken position.

Besides, if the enemy's combat reconnaissance is so insufficient that he fails to locate the battalion in this flanking position, and starts his attack straight towards Square Corner, his incorrectly directed firing lines may be thrown into serious confusion, and much valuable time thereby be gained by the unexpected flanking fire from the Blue main position. The Reds should, if possible, be led into this error by a very wide deployment of the detachment at Crossroads 601, and its early development of a heavy fire.

The right flank is the weakest part of the position, because rather easily approached under cover from the east to

close ranges. The support will, accordingly, be posted behind this flank.

It is, of course, a further advantage, that the position can be occupied at once, and by covered routes.

The major has $2\frac{3}{4}$ companies with which to defend it. To obtain from the outset a strong development of fire in this delaying action, he requires two full companies in the firing line. The advance guard company will then be drawn back into support. It is most convenient to send its leading units to crossroads 601 to check the enemy's direct advance, in retiring therefrom to cover the battalion's left, and to hold off any small detachment the enemy may make to get at the convoy in that direction. This company will also have to send a squad to roadfork 582 to cover the right flank.

There is no time to entrench. In fact any movement to do so now would simply invite hostile attention to the real position.

If the battalion can hold until the convoy has passed the Shebley farm, the latter can then be considered safe. At 4:30 a. m., the convoy's head is nearing roadfork 598, almost $2\frac{1}{2}$ miles from Shebley. To pass that point it will have to go $2\frac{1}{2}$ miles, plus one mile, its length, or $3\frac{1}{2}$ miles. The battalion then, with the convoy making 2 miles an hour, will have to hold its position for nearly two hours. Whether it can do so, without fighting to a decision, will depend very much upon the time taken by the hostile reconnaissance in locating the Blue position.

To be able to sweep the fold along the 600 foot contour, the major is compelled to extend his right company to the first road bend southeast of the Font farmhouse. The left company will be astride the 601—609 road.

His decision is to defend the position described above with A and B Companies in the first line, and C Company in support.

The Battalion Commander's Actions and Orders

Major A directed the commander of the advance guard company at 4:20 a. m.:

4:20 a. m.

The enemy will very probably appear soon on the Hanover Road. The battalion halts at this crossroad.

Send your two leading squads to the crossroads to the north on the Hanover Road to check the enemy when he appears. Halt the remainder of your company at this point and post small security detachments east and west of the battalion, which will be closed on C Company.

When A and B Companies came up, they were halted, and directed to take cover in the timber west of the 601—609 road. The captains and staff were assembled at the crossroads.

4:32 a. m. At 4:32 a. m., the major issued orders to those officers as follows:

The enemy is marching west on the Hanover Road. His advance is already engaged with C Company's detachment at the crossroads to the north.

We will defend this crossroads.

B Company will deploy between the Font farmhouse (pointing to it) and the first road bend to the southeast, to fire on the sector from the farmhouse to our right (the one northeast of roadfork 594) to the one to the right front (pointing to the one 400 yards southeast of crossroads 601).

A Company will deploy on both sides of this road (indicating the 609—601 road), to fire on the sector from the farmhouse to the right front (400 yards southeast of crossroads 601) to the one to the left front (Wentz).

Both companies will take every care to avoid attracting hostile attention in occupying the position. Do not open fire until ordered by me.

C Company will withdraw under cover to a station in support at the farmhouse south of us (Gebhardt). It will send a squad across the stream east of that farmhouse to cover our right, and will direct the detachment now on the Hanover Road, upon withdrawing to cover our left from the vicinity of the orchard to the left front (Noel).

Issue ammunition at once. Empty combat wagons and the ambulance will take station in the drawhead 400 yards west of this point, at the disposal, thereafter, of the surgeon.

Battalion headquarters at this point, with which semaphore communication will be maintained.

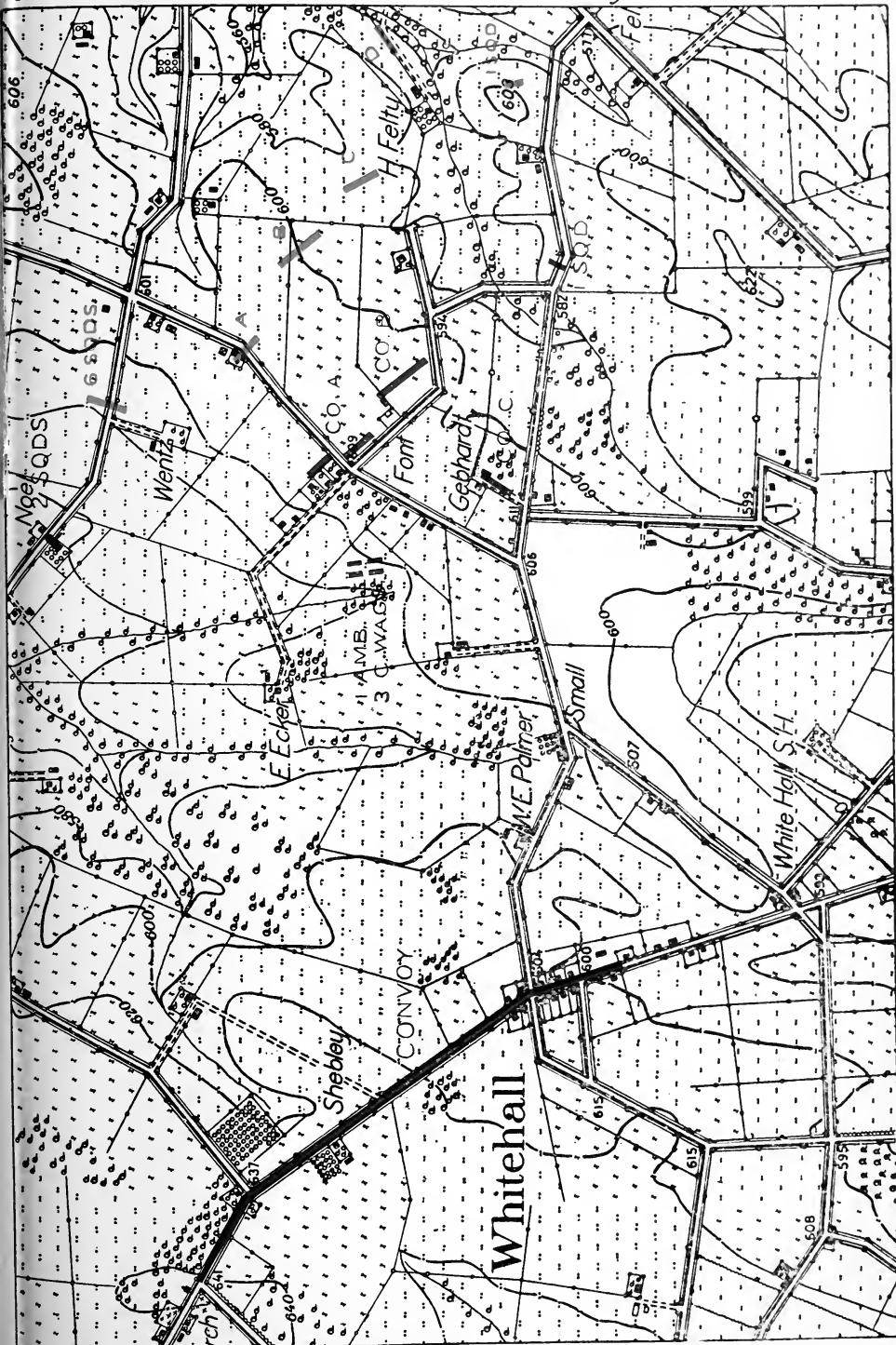
The major then told the battalion adjutant to describe the situation to Captain D in charge of the convoy, and to impress upon him the necessity for permitting no delay in the convoy's march.

He notified the battalion surgeon that he would withdraw as soon as the convoy was safely by, and that any wounded must go with the battalion. (See sketch No. 12).

The Withdrawal From Action

The two squads of C Company had been in position at crossroads 601 but a few minutes, when a hostile detachment

SKETCH NO. 12. Situation at 545 A.M. May 6.





came over the rise west of the Rebert farm. Fire was opened at once upon the Reds. The latter promptly sent parties under cover north and south of the Hanover Road so that by 5:00 a. m., the Blue detachment was flanked and compelled to fall back to the Noel house. The enemy occupied the crest at 601 and opened fire upon the retreating Blues.

A Red patrol from the direction of the H. Felty house ran into the position of B Company, and the enemy consequently became aware that the Blues had something at cross-roads 609. From 5:00 a. m. to 5:40, the Red patrols developed an intense reconnaissance, the enemy evidently being in some doubt whether the Blues were to be found in strength towards Square Corner, or towards the Font farm. At 5:45 a. m., Red firing lines began to appear to the east. Shortly thereafter, three of their companies were deployed and firing.

Reports from the convoy indicated that its center was by this time (5:45) near St. Luke's Church. It was time to withdraw.

The major accordingly issued orders as follows:

- | | | |
|--|-------------------|------------|
| | 1st Bn. | |
| | 6 May, 6:00 a. m. | 6:00 a. m. |
- F. O. No. 9.
1. The convoy has passed WHITEHALL.
 2. The Bn. will withdraw to ST. LUKE'S CHURCH.
 3. (a) The ambulance and combat wagons by farm road southwest of them and WHITEHALL at once.
 - (b) Co. C via WHITEHALL at once.
 - (c) Cos. B and A, due west across country, at my signal "to the rear".

B,
Major.

This order was prepared between 5:30 and 6:00 a. m., the hour simply being left to be put in at the last. Copies were started simultaneously for the 3 companies and for the surgeon.

As soon as C Company and the ambulance and wagons had gained a few hundred yards, the signal was given to B and A Companies, in turn, to start. A Company did not receive its signal till B Company was due south of 609. Each company was followed by a small rear guard. At roadfork 637, the battalion assembled; and continued the march under the protection of A Company as its rear party.

Part III—A Battalion of Infantry

ATTACK OF A CONVOY

On May 5, Red and Blue armies are confronting each other in Red territory, on the line Hunters Run—Newville (sketch 10 and Guide Map). The Blue invading army has advanced from the southwest.

Blue line of communication troops have been collecting supplies southeast of Littlestown.

The 1st Battalion, 1st Red Infantry, marched May 5 from York and camped at Brushtown about 8:00 p. m. It has been sent to drive off the Blue troops engaged in the work of collecting, and to recapture any supplies they may have gathered. While the battalion is a regular organization, its men are nearly 70 per cent recruits. The twenty-mile march has pretty well exhausted these new men.

By 9:00 p. m., through an extensive use of the telephone, the major in command has learned that the Blues, whose total strength is reported as five or six hundred men, passed through Littlestown earlier in the evening with a long convoy of impressed wagons, that they made camp a mile to the north of that town, and that the Blues came into Littlestown two days before from the northwest, via Hunterstown and Boneauville.

Heavy rains have put all roads in bad condition.

The Red outpost consists of a squad at the Little Conewago crossing on the Hanover Road, another squad at 525 W, and a cossack post at the railroad bridge near 525 W; all from D Company.

The Battalion Commander's Estimate of the Situation

The major's mission was clearly stated in his orders. Nothing has arisen to cause any change therein.

Of the enemy, he has reports that the hostile strength is five or six hundred men, and that the convoy is large. The estimate of the Blue strength, rendered by civilians,

may be very far from the truth. Having come into Littlestown by way of Boneauville and Hunterstown, the Blues will be likely, in strange and hostile country, to return by the same route, unless they learn of the presence of the Red battalion. From Brushtown to Littlestown is about four miles as the crow flies. Since the Reds reached Brushtown late in the evening, and the Blues likewise passed Littlestown late in the evening, it is very possible that the latter, in hostile country, have not learned of the Red battalion's presence. If so, the Blues will probably move out at a customary hour tomorrow morning, and along the route over which they came. If they learn of the Reds presence, they may march at a very early hour, and perhaps by Gettysburg. In this case, Major A will fail to catch the convoy, unless he, too, marches tonight, or at an exceedingly early hour in the morning.

To march at once, however much he would like to do so, with his very tired troops, is out of the question. They have done from 20 to 22 miles over muddy roads, and are largely recruits. Even to march at dawn, which comes about 4:25 a. m., will work considerable hardship, since experienced men would have to be up an hour beforehand, and these recruit organizations will need perhaps half an hour more for preparation. The major concludes, that if he starts at four o'clock, he will require about all that is practicable from his men.

More definite information about the Blue strength, dispositions, and intentions must be obtained tonight. His men are too tired to send a dismounted patrol. The adjutant and two mounted orderlies must, therefore, go on that duty.

Assuming that the location of the hostile camp has been correctly reported; and having decided that he will march at four o'clock, the major must next decide what is to be the immediate objective of that march. If he proceeds directly towards Pleasant Hill S. H., or towards Whitehall, the enemy, by moving early, may get by before the Red battalion arrives. If he marches towards Boneauville, he will have the best chance of intercepting the convoy, provided the Blues return as they came. If they go instead via Gettysburg, and both Reds and Blues start at the same time, and

march at the same rate, the first, having $10\frac{1}{4}$ miles to go, and the latter $9\frac{3}{4}$, the Reds, considering the probable length of the convoy, should be able to cut it off at Gettysburg. The Reds should have no difficulty, in reality, in moving very much faster than the convoy. There would, however, be great danger for the Reds in working so far in towards the rear of the main Blue army.

It seems best, though, to determine upon the route now, only as far as crossroads 601; to send out tonight a mounted patrol to remain in touch with the enemy; and to start dismounted patrols at an early hour to strike the enemy's most likely line of march by Whitehall and Boneauville at the salient points, in the expectation that by the time crossroads 601 is reached, information will be at hand to determine the best course thereafter. If, at this point, the enemy seems to be still in camp, the Red battalion will march on Whitehall S. H. When Whitehall S. H. is reached, if the convoy is still in camp, the Red battalion will turn south to attack it. If it is then marching on Boneauville, the Reds will remain in position at Whitehall S. H. If the Blues start west, on the Baltimore Turnpike, from their camp, there may be time to cut the convoy off by marching southwest between Alloway and Plum Creeks. If when crossroads 601 is reached, the enemy seems to have started for Gettysburg, the Reds will hurry their march by Square Corner and Boneauville. If he has started for Boneauville, the Red battalion, unless prevented by hostile covering parties, will continue via Square Corner.

The major decides, therefore, to send a mounted patrol at once towards Littlestown, and three dismounted patrols at 3:00 a. m. for the Littlestown—Whitehall—Boneauville road, and to march the battalion at 4:00 a. m., provisionally on crossroads 601.

The Battalion Commander's Actions and Orders

The major and his adjutant were together at the telephone central in Brushtown, when the information of the Blue movements was obtained from Littlestown, and they noted the houses that have telephone connections north of

Littlestown, and along the Hanover road. The major at 10:00 p. m. directed the adjutant:

10:00 p. m.

I want you to take both our orderlies and proceed via Littlestown to learn the hostile strength and dispositions. It is particularly important to find out whether he will march tomorrow by Whitehall and Boneauville, or by the Baltimore Turnpike towards Gettysburg. The Battalion will march at 4:00 a. m. to crossroads 601. Its action thereafter will depend upon the movements of the Blues. Maintain telephone communication with me. I will leave messengers at each farmhouse as we pass.

The major had the cooks awakened at 2:00 o'clock, and the battalion at 2:30. At two o'clock, the major sent for the captain of A Company, and directed him:

2:00 a. m.

Littlestown reports that the enemy camped with a large convoy north of that town last night. We will march at 4:00 o'clock towards Boneauville. Your company will be the advance guard. I want to send three patrols of six men each, one under an officer, and all from your company, ahead at 3:00 o'clock. They will go by Square Corner towards St. Luke's Church, by crossroads 601 on Whitehall S. H., and by Felty S. H. towards Pleasant Hill S. H.—the officer by the central route. Have them ready to march at 3:00 o'clock., and send their leaders to me for instructions about ten minutes before that hour.

At 2:50 a. m., he instructed Lieutenant M, and Sergeants K and S, as follows:

2:50 a. m.

Five or six hundred Blues, in charge of a large convoy, are reported to have camped last night north of Littlestown. Lieut. K (Bn. Adj.), with two mounted orderlies started via Littlestown at 10:00 o'clock last night to reconnoiter the hostile camp. This battalion will march at 4:00 o'clock, provisionally on crossroads 601, about two miles west of Brushtown on the road to Gettysburg. I want your patrols to proceed at 3:00 o'clock to within sight of the Littlestown—Boneauville road and keep me informed of the hostile movements. Lieut. M will start the three patrols together. At the A. Rifle farm, about a mile west of Brushtown, he will detach Sergeant S, with his five men, by Felty S. H. towards Pleasant Hill S. H.; at crossroads 601, a mile farther to the west, he will detach Sergeant K, with his five men, by Square Corner towards St. Luke's Church; and will himself proceed, with the remainder, by the Font farm towards Whitehall S. H. Make every practicable use of telephones in reporting information obtained. I will station messengers at all telephones we pass on the Hanover Road.

At 3:00 a. m., the major assembled his captains and staff, less the adjutant, and ordered:

3:00 a. m.

Littlestown reports that five or six hundred Blues camped last night, in charge of a large convoy, about a mile north of that town. Lieut K (Bn. Adj.), with two mounted orderlies, left at 10:00 o'clock last night to reconnoiter the enemy's camp. Three dismounted patrols from A Company are now starting towards St. Luke's Church, Whitehall S. H., and Pleasant Hill S. H.

We will march at 4:00 o'clock, provisionally on crossroads 601, two miles west of Brushtown on the road towards Boneauville, to attack that convoy.

Company A will constitute the advance guard, and will clear the Brushtown roadfork at 4:00 o'clock. This company will place men at each farm telephone, as passed, to receive and transmit messages from our patrols.

The main body of the battalion in the order: B, C, and D Companies, will follow at 600 yards.

The outpost detachments will close in on the Hanover Road in time to join their company at the crossing of the Little Conewago.

The field train will be assembled in camp as soon as the battalion has gone, and will await orders.

I will march with the advance guard.

Orders, Commander of the Advance Guard

The captain of A Company assembled that organization
3:50 a. m. at 3:50 a. m., marched it to the Brushtown roadfork, halted it with its tail at that point, and directed:

Littlestown reports that five or six hundred Blues, escorting a large convoy, camped last night about a mile north of that town. Our Battalion is marching to attack the convoy. We have one mounted and three dismounted patrols out to the west and southwest.

This company is the advance guard.

The 1st Platoon, as advance party, will precede the remainder of the company by 400 yards, marching by the Hanover Road towards Boneauville. It will get its distance at once.

The 1st lieutenant immediately set his platoon in-march. When he had gained 400 yards, he halted the platoon, and directed his sergeant:

Take the 1st squad forward as the point. Get 200 yards distance and halt until I signal, Forward.

Both the lieutenant and the captain sent connecting files forward at about 30 yards apart, for although there was a moon, it was not bright. Exactly at four o'clock the captain signalled, Forward March.

At the A. Rifle roadfork, a patrol of four men was sent south to crossroads 581, thence west by the H. Felty farm and crossroads 609, to come back to the Hanover Road at crossroads 601.

An Infantry Patrol

For the first hour, the march of Lieut. M's reconnoitering patrols was without particular incident. The one, whose route led by Square Corner, arrived in the vicinity of the

roadfork between St. Luke's Church and the Shebley farm at 4:20 a. m.; and the one by Felty S. H., in the vicinity of crossroads 633, northwest of Pleasant Hill S. H., at 4:10 a. m. Enroute, this patrol was passed by two Blue horsemen, one an officer. The Red patrol heard the enemy's horses in time to clear the road, and permitted the hostile patrol to pass without attempting a capture; but the fact of the Blue's passage was reported in the first message sent back.

Lieut. M, with the central patrol, came to crossroads 609 about 3:50 a. m., and finding a countryman already up milking the cows at the nearby house, learned from the man that no Blues had been seen in the neighborhood, and that the night had been a quiet one. The patrol marched south from that point, with an advance guard of the corporal and one man, followed at ten yards by the lieutenant and one man, while the other two, as the rear guard, were ten yards behind the lieutenant. At roadfork 606, as the patrol turned towards the Small farmhouse, its passing disturbed some dogs at the house near 606. Their barking died away after the patrol had passed a hundred yards or so, but a few minutes later started up again most persistently. The lieutenant decided something was happening behind him which required investigation. He immediately signalled his patrol to move into the field to the north. After waiting quietly there for a short time, without anyone's passing towards Whitehall, and yet with the barking continuing at the crossroads, the lieutenant directed his patrol to stay where it was, while he with one man, moved across the fields to the east. Crouching within a few yards of the 606—609 road, he watched some 100 Blue soldiers move north thereon, followed at two or three hundred yards by a couple of companies, three escort wagons and an ambulance. The lieutenant waited fifteen minutes to see whether other hostile troops were following them. By this time, 4:20 a. m., it was evident that dawn was near at hand. The patrol could not remain many minutes longer in the open field without great risk. The information the lieutenant had just obtained was of the greatest importance, and must be sent to the major as promptly as possible. To get

that information back would not, however, warrant his returning with the whole patrol. His mission was by no means completed. He had not yet located the convoy, and did not know where the Blue battalion was going. The first thing, though, to do before proceeding to obtain more information, was to get his patrol into some sort of cover, then write and forward his report of what had just been seen. To find out where the convoy was, would require a movement westward while the Blue battalion was marching north, and his reports had to be sent to the east. To split his patrol in the three directions while attempting to attend to all of these matters at once, was highly inadvisable, as upon his personal observation and leadership must very largely depend the value of the information obtained, and the likelihood of its getting safely back. The most important immediate duty was to get his message started to the east, and it would seem to have a better chance of safe arrival, if he moved the whole patrol east of the hostile line of march before detaching his messengers. But before starting to put this decision into effect, on the chance of being able to telephone, he moved back to the farmhouse, 400 yards northwest of 609, where he learned not only that they had no telephone, but that none was to be found in any of the nearby houses. Returning then to the main body of the patrol, he conducted it rapidly to the south of the 606—Small road, and thence east into the light timber, southeast of roadfork 611. The patrol worked into the northern part of the grove. One man climbed a tree a few yards south of the 611—582 road, to observe to the north, in the direction the enemy's battalion had gone. And one man was stationed, some ten yards out, on each of the remaining sides. The lieutenant, in the center of the group, wrote the following message:

No. 1, Near roadfork 606, one mile
east of WHITEHALL,

6 May, 4:30 a. m.

Three Blue companies passed roadfork 606 marching towards
609 at 4:10 a. m.

M,
Lt.

Two of the men were directed to take this to the battalion, by moving along the stream line heading east of the

timber in which the patrol was then. They were to tell the major that Lieut. M intended to follow the enemy.

Within five minutes after the departure of the messengers, the lookout called to the lieutenant that he could see the hostile transportation halted a few hundred yards up the road to the north. The lieutenant joined the lookout. As it grew lighter, he made out two Blue companies in the road southwest of crossroads 609. A little later these, evidently, drew their extra ammunition; then the wagons and ambulance disappeared in the timber west of the road, while one company deployed across the road east of the crossroads (609), and another deployed farther to the east, with its left at the Font farmhouse. Presently a weak company came back from the crossroads and took station in the clump of timber east of the enclosure about the Gebhardt farmhouse. This was the Blue situation as the Red patrol leader saw it at 4:45 a. m. He had obtained very definite information of the greatest possible value, provided it could be got to the major without delay. He had seen the enemy take up a position that flanked the proper line of advance of the Red battalion, and which might cause the battalion a maximum of trouble unless promptly detected. Lieut. M must, of course, hurry in his report. Shall he take his whole patrol back to effect the delivery, or simply send another pair of messengers? Two men should be able to slip through with less chance of detection than four men, and the lieutenant has yet a part of his mission to accomplish. While the convoy is probably coming by Whitehall, he has not seen it, and the major will want facts from him, not guesses. He decides to send a written message by two men, and then work over to the west with the remaining man, to locate the convoy.

No. 2, Near roadfork 606, one mile
east of WHITEHALL,
6 May, 5:00 a. m.

Two Blue companies have deployed on line crossroads 609—FONT farmhouse. A third company is in support at GEBHARDT farmhouse. Sketch on back. Am moving west to locate convoy.

M,
Lieut.

The corporal and one man were sent with this by the route of the first messengers. They were cautioned that

they were likely to meet hostile patrols, but that it was of the utmost importance, not only to get through, but to get through very promptly, or the information would reach the major too late to be of value.

5:10 a. m. The lieutenant, with the one remaining man, moved to the southern part of the wood, then up the draw to the southwest, and into the timber west of roadfork 599, where he arrived at 5:10. Climbing a large tree, he saw the whole mile-long convoy stretched out on the Littlestown—Boneauville road with its head nearing Whitehall. He had now obtained all of the information he had been sent for, and there seemed nothing further to be learned, that would warrant his delaying a moment in starting back with what he had just acquired. To use a single messenger, even in this very friendly country, would not be advisable, because any route by which the message could be carried without a wide detour, must be made very dangerous by the enemy's patrols. The lieutenant started back via the wood and stream southeast of the Gebhardt farm. Near roadfork 599, he found an intelligent farmer who told him the telephone lines in the vicinity had been cut by the Blues, but that he would be glad to go to the houses to the south, and try to get the lieutenant's message through from there. The following was hurriedly penciled and handed him:

Major A:

HANOVER ROAD between WENTZ and REBERT farms.
Convoy moving on BONEAUVILLE. Head nearing WHITEHALL at five ten a. m.

M,
Lieut.

The lieutenant, proceeding rapidly along the route decided upon, fell into an ambushade that the Blues had set for him near roadfork 582, was captured with the soldier following him, and sometime later had the mortification of joining his second pair of messengers near the Gebhardt farm.

He had obtained definite insight into all of the enemy's dispositions, but, as will be so frequently the case, was unable to get the information to the headquarters where it was needed. It is one thing to obtain information, but another, and frequently a much more difficult matter, to transmit it.

A Battalion Attack—Advance Guard Reconnaissance

At 4:30 a. m., the battalion's point, coming over the rise west of the Rebert farm, received such a fire from the crest half a mile to the west, that the men were compelled to take cover from and return it. The lieutenant in command of the advance party deployed a second squad alongside the first, and started his remaining one and one-half squads, 4 men of his platoon had been sent south at A. Rifle, in two patrols to work west under cover of the stream lines, north and south of the Hanover road. The rest of A Company turned up the southern stream line, and followed the left patrol, which by that time was some 400 yards up the draw. At 4:50 a. m., this patrol reached the house and orchard 400 yards southeast of crossroads 601, immediately deployed, and opened fire towards 601. By 4:55 a. m., when the company was about a hundred yards east of the farmhouse, the captain ordered his second platoon into the orchard to reinforce the patrol then there. Upon the deployment of this platoon, the enemy's fire at once slackened, and by 5:00 o'clock had entirely stopped. The Second Platoon advanced a hundred yards beyond the crossroads, and again opened fire towards the west. From the farm house, the captain, a few minutes before this, had seen one man of his flanking patrol, in the field north of the H. Felty house. He concluded, therefore, that if the enemy had anything near crossroads 609, that fact would be determined before many moments by the flanking patrol. Meantime, and until the leading platoon had also gained a little more ground to the west, he would hold the company under cover east of the farmhouse. About 5:10 a. m., a single man came running in from the southeast to report that the other three men of his patrol had been captured by a number of Blues, about 500 yards southeast of crossroads 609; that he had been the patrol's rear point, and by hard running had escaped, although several shots were fired at him. A non-commissioned officer, from crossroads 601, also reported that, when the platoon went over the crest, from twelve to fifteen widely extended Blues were in rapid retreat about six hundred yards west of that point, that these disappeared immediately in an orchard (Noel), from

which fire was opened a few minutes later, and that the 2d Platoon was now gaining some ground in that direction, but not at all rapidly.

The captain of the advance guard company, although much time had been lost already, had so far not been able to do very much towards clearing up the situation. The enemy might have only a strong patrol in front of him, and another towards crossroads 609. And yet, since the enemy might be in strength in either of these directions, the battalion could hardly advance till more had been learned.

5:12 a. m. The captain, accordingly, issued orders, at 5:12 a. m., to his first lieutenant, who had come up with the bulk of the original advance party, to Sergeant Y, and Corporals B and C, as follows:

The Second Platoon is driving a party of Reds along the Hanover Road towards Square Corner. Our left flank patrol found a number of Blues near that farmhouse (Font) to the southwest.

We must determine at once where the enemy's strength is.

Sergeant Y will reinforce the Second Platoon with the 9th and 10th squads.

The First Platoon will move up this draw west of us, and advance straight towards the crossroads (609) to the southwest.

Corporal B with 3 men of his squad will work rapidly over to the house (Wentz) a half a mile west of us, and thence to the southwest.

Corporal C, with 3 of his men, will move by the house due south of this point (indicating the one northeast of roadfork 594).

Messages to this house (400 yards southeast of 601).

5:25 a. m. The Second Platoon, by 5:25 a. m., began to gain ground towards the west by long rushes; the First Platoon had reached the house 350 yards southwest of crossroads 601 and was stopped there by heavy fire from both sides of the 601—609 road; the patrol working southwest from the Wentz house also was stopped by fire from the enclosure 300 yards northwest of crossroads 609, and the patrol to the south had not been able to get beyond the house 200 yards northeast of roadfork 594.

The Battalion Commander's Estimate of the Situation

Turning now to the battalion commander, we find that the major received reports somewhat as follows: At four o'clock, from the battalion adjutant by telephone, that the hostile battalion marched north at 3:00 o'clock; and about 5:00 o'clock, also by telephone, that the convoy marched on

Whitehall at four o'clock. No reports were received from either of the dismounted patrols by Square Corner or by Felty S. H. At 5:10 a. m., Lieut. M's No. 1 came in, reporting that three hostile companies had passed roadfork 606 at 4:10 a. m.

During the advance guard reconnaissance the main body was assembled west of the stream line west of the Rebert farm. The three captains joined the major at the farmhouse 400 yards southeast of crossroads 601.

The latter, by 5:10 a. m., had a pretty clear idea of the enemy's general dispositions. The Blues had apparently sent three companies out to meet the Red battalion while the convoy was passing by Whitehall and Boneauville. At first, while the enemy still held the 601 crest, there was considerable doubt but that he would be found with the greater part of his three companies directly in front of the Reds. As soon as the flanking patrol to the south reported that a number of Blues were in the direction of crossroads 609, and that the crossroads at 601 had been cleared of the enemy, the major concluded that they were probably in strength at 609.

It would not do to wait much longer for exact information. The hostile convoy had been on the road for more than an hour, and would soon be beyond reach.

If the major attacks towards crossroads 609, and the Blues happen to be in the direction of Square Corner, no harm will be done, because he should still be able, by a rapid advance, to strike the convoy on the Whitehall—Boneauville road. But on the other hand, if the Blues are in strength at 609, and he attempts to march by, towards Square Corner, the battalion will be stopped by the fire from the enemy's position. Any thought of a detour to the north, with the idea of striking the convoy somewhere north of Boneauville, is at once dropped. The best way to get at the convoy is to beat its escort, and that escort appears now to be offering an engagement.

While the major is considering the matter, the platoon of A company starts towards 609, and draws a heavy fire therefrom. That removes the last doubt in the major's mind that the Blue battalion is at 609.

An envelopment of the hostile left would require too great a detour to get troops in position for attacking, and the ground in front of that flank is open to long ranges. An envelopment of the hostile right is favored by the stream line, which permits the attacking column to get fairly close in, under good cover. But it has the disadvantage that the two attacks will be separated by too great a distance, since the weak advance guard company should continue its attack down the 601—609 road. It seems better, therefore, to make a frontal attack with three companies, while causing the fourth company to follow along the stream to envelop, if to do so becomes expedient as the attack proceeds.

In attacking a convoy, it is usually advisable to make a detachment whose sole function is to get the convoy. While everyone's attention is attracted by the events of the engagement, that detachment will, quite frequently, find its opportunity somewhere. The present case does not differ in this respect from the normal. A Company has six squads, under an officer, that are rapidly driving an inferior Blue force towards Square Corner, in which direction, there should now also be the patrol of six men that left Brushtown at 3:00 o'clock. If assigned the mission of getting the convoy, this detachment may, very likely, assisted by the timber along the stream lines south and southwest of Square Corner, be able, at least seriously to delay it.

The major decides to attack frontally with three companies.

To have the fourth follow the left of the attacking line along the stream by H. Felty; and

To assign the reinforced Second Platoon of A Company the mission of stopping the convoy.

The Battalion Commander's Attack Order

He accordingly issued orders to the four captains, at 5:20 a. m. 5:20 a. m., as follows:

The enemy appears to have three companies in position from the crossroads (609) southwest of us to the road bend 200 yards southeast of the red (Font) farmhouse. The convoy marched towards Boneauville at 4:00 a. m.

We will attack at once.

Square Corner

Whitehall



Company A (less its reinforced Second Platoon) towards the crossroads (609) to the southwest. I will order that reinforced Second Platoon to move rapidly west to get the convoy.

Company B, deploying with its right 50 yards southeast of this house (one 400 yards southeast of crossroads 601), will attack the red (Font) farmhouse.

Company C will advance up the draw 400 yards southeast of this house (one 400 yards southeast of crossroads 601), to attack in the direction of the yellow house (Gebhardt).

Company D, in support, will follow C Company at 200 yards along the stream line to the south.

Issue ammunition at once, and move out promptly. Empty ammunition wagons will assemble at the Rebert farmhouse (the sergeant major attends to this).

I will go with the support.

1st Bn.

6 May, 5:25 a.m.

Comdr., 2d Plat.,

Co. A.

Blue Bn. is in position on FONT farm. Convoy left camp at 4:00 a. m., and is marching via WHITEHALL. Our Bn. attacks Blue Bn. Your reinforced platoon will proceed rapidly west and stop the convoy.

B,

Major.

The captains started for their companies at 5:25 a. m. Extra ammunition was issued by 5:35 a. m., and the deployment began. A Company did not attempt to draw ammunition. By 5:45 a. m., three companies were deployed on the line of the farmhouse, 400 yards southwest of crossroads 601, and H. Felty, and had opened fire. Twenty minutes later it was plain that the hostile lines were withdrawing. The major urged everything forward, but the ground favored the hostile retirement too greatly to permit the attack to bring them again to bay. (See sketch No. 13).

5:45 a.m.

Part IV—Cavalry Patrol

Situation:

A foreign (Red) Army has taken possession of Baltimore and Washington. A Blue Army is being assembled to the northwest of the territory occupied by the Reds, and has sent forward covering detachments, one of which is at Carlisle, thirty miles north of Gettysburg.

On June 30th, the commanding general at Carlisle sent for Lieut. A, 1st Cavalry, and gave him the following order at 5:00 p. m.:

Small hostile parties, probably all cavalry, were reported to be very active in the general vicinity of Gettysburg this morning. All wire communication with that place ceased at noon today, and inhabitants sent south in automobiles have been either held or, learning of hostile parties on the road they were on, have turned back. The Carlisle—Center Mills road, as far as Center Mills, was free of the enemy at the last report a few moments ago. Your squadron will be assembled this evening at Carlisle and will march on Center Mills early in the morning.

Your troop will be relieved of its present duties and will go with the squadron.

In the meantime, you will take two non-commissioned officers and eight men of your troop and patrol toward Gettysburg, starting as soon as you can get ready. I desire accurate information of the strength and movements of the enemy that has appeared around Gettysburg. Send reports to me here. Return when you have cleared up the situation.

The weather is warm and clear; roads dusty; streams low; moon rises at 10:00 p. m.

The main road from Carlisle to Gettysburg runs through Center Mills.

Required:

(a) Details of the assembly and march of the patrol till Center Mills is reached, no enemy being encountered up to that time.

(b) Lieut. A's reasons for the action taken.

Lieut. A first obtained from his Captain the men and horses that were to accompany him. The horses were next

inspected to see that they were in good physical condition and well shod, the captain's assistance being requested in replacing poor horses and in substituting suitable animals for those of conspicuous color; or those that were known to neigh, when alone. The horses finally selected were then inspected, and the captain requested to have the horseshoer tighten or reset all loose shoes.

The horses were then watered and fed, and the men instructed to get their supper.

As soon as they had finished eating, the men were instructed to obtain a cooked meal to take with them, to fill their canteens with coffee, and to provide themselves with a half feed of grain, to be carried in nose-bags; to leave their extra clothing, toilet articles, and shelter tent equipment tied up in bundles in charge of the troop Q. M. Sergeant; but to take with them their slickers and one reserve ration each.

While the men were making these preparations, Lieut. A ate his supper and then tried to secure for his men as many as possible of the following articles:

Six wire cutters, so that he and every other man would have a pair.

For each of his non-commissioned officers, the following: pad of message blanks, pencil, compass, map, and field glasses.

All of these articles were obtained, except the field glasses and maps; however, Lieut. A made, for each non-commissioned officer, a tracing of his own map which indicated the roads and streams and the higher hills.

Lieut. A had his own kit complete, including a pocket flash-light. The patrol then saddled up and mounted, and the lieutenant inspected each man to see that he carried just the articles he was told to take, and no others; and that arms and equipments were so disposed that they would not rattle.

The situation and Lieut. A's intentions were then explained to the whole patrol.

We will assume that these preparations were completed by 6:30 p. m.

Just before starting, Lieut. A inquired at headquarters whether any further information had been received.

The patrol then moved out by the main road in the following order:

Point, Corpl. X and one private—distance 200 yards—Lieut. A and the remainder of the patrol less two privates—distance 100 yards—two privates.

The march to Center Mills was made at a rate of 5 to 5½ miles per hour, the distances being reduced by half as darkness fell.

Reasons

Lieut. A is starting on a ride of indefinite duration. He must take the time for careful preparation before starting, in order to insure physical conditions that will admit of accomplishing his mission. More time would eventually be lost than gained by rushing off with men and horses hungry, and otherwise unprepared for extreme exertion. If the men had already eaten supper, and horses had been fed, as would frequently be the case at 5:00 p. m., a much earlier start could be made.

Lieut. A has no authority to exchange unfit horses or men, or to take the horseshoer from the work assigned him by the captain, or to add to the load of the troop baggage wagon. For these arrangements he must consult his captain, who will render all the assistance the situation of the troop, as a whole, warrants.

Should Lieut. A's patrol be gone for several days, as seems not unlikely, he will have to subsist his men and horses off the country; but this will not be difficult in friendly farming country, and will be better than burdening the horses with the weight of rations and grain. On the other hand, it is best always to have one meal for men and horses ready, so it may be consumed when needed without delaying to procure it. It will then be replaced at the first favorable opportunity.

The time of year, state of the weather, and conditions of the march thus enable the horses to be relieved of

much weight, which will increase their speed and endurance.

As the road, as far as Center Mills, is reported free of the enemy, Lieut. A will not waste time and energy in elaborate measures for the protection of his march, but will proceed by the main route, merely putting out a couple of men in advance so he will not be surprised and captured, should conditions have changed before he reaches Center Mills. This will require no extra exertion of horses and men, and is a necessary precaution.

Over this rolling country, in hot weather, a gait of 5 to 5½ miles per hour is as fast as the horses can go and still retain sufficient energy for a long continued march, or a burst of speed in an emergency.

Situation (continued) :

Lieut. A reached, without incident, the northern outskirts of Center Mills at 10:15 p. m., and found the village quiet, and most of the houses dark.

Required:

Conduct of the patrol at Center Mills.

On approaching Center Mills, Lieut. A sent a man forward to his point with this order:

Join Corporal X and tell him that his party is to trot straight through the village, while the patrol halts here. He will then halt as a march outpost and send you back with a message, if all is clear, in which case the patrol will move into the village and halt there for a few minutes, while Corporal X and companion remain on watch at the first roadfork south of the creek that runs through the village.

On return of the man from Corporal X, Lieut. A rode 10:30 p. m. with his patrol into the village, dismounted it, after posting one man as a lookout, called and questioned some of the inhabitants, and telephoned to detachment headquarters at Carlisle a report of his arrival at Center Mills, a summary of the statements of the inhabitants, and a statement that the patrol would continue south at once.

Mail in the post office was not examined as the people were friendly and willing to give all possible information.

The owner of two good horses was found and instructed to hide the horses, so that no hostile patrols could find them, and to be ready to turn them over to any messengers Lieut. A might send back. The above was done in case the telephone failed to work, and the messengers' horses should be exhausted.

The telephone office and the place where the owner of the horses could be found was then pointed out to all the members of the patrol.

Situation (continued) :

At Center Mills it was learned that all wire connection south of the Conewago had ceased during the afternoon, and that farmers living just north of the Conewago had reported seeing numerous small parties of the enemy late in the afternoon, but that no hostile party seemed to have come closer than about two miles to Center Mills.

10:45 p. m. At 10:45 p. m., Lieut. A is ready to proceed.

Required:

(a) Conduct of the patrol from Center Mills to the Conewago.

(b) Reasons for action taken.

Lieut. A moved the patrol forward till he was in touch with Corporal X, and then ordered:

To Pvt. Z:

Fall back until the patrol is about 100 yards in front of you and retain that position. Watch to the rear so that we shall not be surprised from that direction and should the patrol encounter the enemy, keep out of the fight. Should the patrol be ambushed and captured, you will hasten to Center Mills and telephone a report of the matter to headquarters at Carlisle, and then proceed back along the route we have come, and join our squadron.

Do not rush off with a report that the patrol has been captured till you are sure that no part of the patrol, which you could join, has escaped and gone off in a different direction. Repeat your instructions. All right. Take your place.

To Sergt. Y:

Take charge of these six men, as the main body of the patrol, and follow the point at about 150 yards. Have the men ride on the grass at the side of the road, so the horses will make little noise. Talking and smoking are forbidden. I will be with the point. Should the point hastily fall back toward you, you will gallop to the rear till I can join you and reorganize the patrol.

Lieut. A then joined Corporal X and his companion and, having directed them to move noiselessly on the turf beside the road, proceeded south on the main road, at a walk.

Reasons

Lieut. A moves at a walk because the enemy may soon be encountered, and he does not wish to be ambushed. Trotting horses can be heard for a considerable distance, and thus, at night, when hearing is the sense most used, the enemy would know the patrol was coming in time to lay a trap for it. Furthermore, when riding at a trot, one's own horse makes so much noise, that one can hear nothing else unless the sound be very loud.

Until he knows the direct road is barred, Lieut. A will keep to it, as being shortest and but little more dangerous than any other; besides, it is necessary to know just where the enemy does bar this main road, and by keeping on it the possibility of getting lost is removed. On meeting the enemy, the patrol may be fired upon, but night firing is generally ineffective.

To patrol to the right and left at each crossroad before proceeding, would greatly delay the patrol, which, moreover, passes such a point in a short time and does not stand so much in need of this precaution as would a longer column.

Situation (continued):

At 11:20 p. m., Lieut. A's patrol reached crossroad 600 (near hill 646, three-quarters of a mile north of Table Rock) without incident. Here Lieut. A dismounted and, using his pocket-light, made a careful study of the tracks on the road. He could tell that a few mounted men had passed along each of the road branches in both directions, but could not determine how old the tracks were, because the artificial light made their color quite different from the appearance of tracks in daylight, and the dew had not yet affected the dust in the road. As farmers in this vicinity seldom ride, and it was known that no Blue troops were near, Lieut. A judged that hostile mounted patrols had been

11:20 p. m.

on these roads during the afternoon or evening. The patrol then proceeded to the top of hill 646. Here Corporal X and his companion were sent as a march outpost, 300 yards south on the road, the patrol was halted, and the inhabitant of the house on the hill was wakened and questioned. The latter stated that a few hostile patrols had been seen late in the afternoon, going sometimes in one direction and sometimes in the other. A small party of the enemy had entered his yard and house and looked about; but, except for stealing a few edibles and destroying his telephone, had not molested the inhabitants. The last hostile party seen had passed toward Table Rock at about 8:00 p. m. No inhabitants had come north since about 4:00 p. m., when the first hostile party had appeared.

Lieut. A mounted his patrol and led it to where Corporal X had halted. The corporal reported nothing observed, except that there was a loose horse grazing along the road about 100 yards to the south. The corporal stated that he had been much exercised about the movements of this horse, had finally investigated and found that the animal was lame and wore no harness or equipment of any kind.

The patrol, in its previous formation, then proceeded to road-junction 553, the old horse keeping just ahead of the patrol as it advanced. Here Lieut. A directed Sergt. Y:

Halt here with the patrol. I am going to take Corporal X and reconnoiter the bridge. Should we be driven back and pursued, we will turn up the west fork of the road, and you can then, as a surprise, charge any one who pursues us.

As the old horse kept constantly ahead of Lieut. A and his companion and could not be quietly passed or caught, Lieut. A dismounted and acquired a handful of stones which he threw at the animal, thus causing it to keep a considerable distance ahead of him on the road, along which members of the party rode in such manner as to keep as much as possible under cover of the weeds and bushes. Suddenly they were challenged in a foreign language; whereupon, Lieut. A and the corporal stopped but made no reply. At once the old horse wheeled about and came back toward them. As the old horse passed, Lieut. A and his companion allowed their horses to turn and follow for a little way

and then halted and listened. A few words in a foreign language were heard, followed by a laugh.

By taking advantage of an unforeseen circumstance, Lieut. A had gained information without disclosing the presence of his patrol. First, he had learned that the bridge was guarded by the enemy, and second, that the guard was composed of cool, dangerous men, who did not shoot whenever they thought something moved, but quietly waited till they were sure they had seen an enemy.

Lieut. A quietly rejoined his patrol, cut the fence, and taking his previous formation moved across country to the southwest.

By midnight the patrol had forded the Conewago, and was at the junction of the country roads 400 yards east of Table Rock Station, which was found to be free of the enemy.

Required:

Action and orders of Lieutenant A.

Lieut. A posted a lookout on each of the three branches of the road at a distance of 200 yards from the road junction, assembled the remainder of the patrol behind a bush, and had them look at his map by the aid of the flashlight, the glow from which was limited by holding a slicker over it.

He then ordered:

Sergt. Y, take Pvts. ----- and ----- with you and go by the country road to the west till you strike the main north and south road at Texas, about a mile west of here. I want to know whether or not the bridge across the Conewago, about one-half mile north of Texas, is held by the enemy, and whether or not a party of the enemy is at or near Texas, or at the crossroad three-quarters mile south of that place. I am going east to the main road we just left, and then north. Pvts. ----- and ----- will accompany me.

Corpl. X, you and Pvts. ----- and ----- will accompany me east to the main road, then go south and find out whether or not there is any party of the enemy at the main crossroad, about a mile south of where we enter the main road.

Pvts. ----- and ----- will recross the ford and remain on the north of the stream, prepared to cover the crossing of any of our three parties, should one be driven back.*

I will be back here in an hour and a half and will expect the other two parties either to be at the ford, where we just crossed, or to send a report there by that time. Mount up and move out.

Lieut. A and one private then preceded the remainder of his own and Corporal X's parties by about 100 yards, and moved quietly to road junction 1000 yards southwest of Table Rock. No enemy being found there, Corporal X and party turned south, and Lieut. A and party turned north in the formation—Lieut. A—distance 20 yards— one man—distance 100 yards— the other man.

Road junction 567 was reached without incident, no enemy being found there.

Required:

(a) Lieut. A's estimate of the situation (brief and informal).

(b) Further conduct of his party.

(a) Lieut. A knows that the bridge at Table Rock is held by the enemy, whether by infantry or cavalry, a small party or a large one, he does not know, but wishes to find out. As no firing has been heard to the south, he thinks it likely that Corporal X found no enemy at Table Rock Schoolhouse, but this is not certain. He knows that there is no enemy at 567, or at the road-junction between that place and Table Rock Schoolhouse. He, therefore, estimates that the party at the Table Rock bridge is rather isolated and probably not large, or the bivouac of its main body would have been encountered by now. Coming upon this enemy from the rear, he would probably be mistaken for a friendly patrol or messenger, and might ride boldly into their camp with little danger. By so doing he would, however, probably spread alarm, and pursuit of him might easily cut off Corporal X. On the other hand, should Cor-

*Leaving these two men at the ford is objectionable because it splits up the patrol too much. For this reason they might well be kept with Lieut. A. Left where they are, they would give warning, by firing, should the patrol unexpectedly be trailed by a hostile party; would afford a well marked point for reassembly in the darkness; and, should all the parties south of the stream be cut off, would insure word of their capture being sent back.

poral X be attacked and pursued, Lieut. A can easily cut the fence and rejoin the patrol north of the river, by fording the stream and working up its course.

He, therefore, decides to cut the fence, conceal his horses in the orchard opposite 567, and try to approach dismounted till he can determine the strength and composition of the hostile party, without himself being discovered.

(b) He, therefore, moved about 100 yards off the road and, leaving his men and horses concealed in the edge of the orchard, went alone through the field toward the bridge, observing toward the road and the village of Table Rock as he advanced.

Situation (continued) :

Lieut. A found what he estimated to be 20 horses, with men bivouacked near them, in the fork of the road in Table Rock Village. By using his glasses, he was able to make them out quite distinctly without himself being discovered. (Any good field glass of moderate power is capable of being used as a "night glass"). He returned to his horses, mounted and started to return the way he had come. On the return journey he kept his men close to him, as the road to the rear is known to be closed, and united action can be better obtained with the men close to the leader.

As he approached the road-junction between 567 and Table Rock Schoolhouse, a few horsemen were heard approaching along the road from the south. They appeared to be south of the road-junction, and nearer to it than was his own party, when they were first observed by Lieut. A.

Required:

Action of Lieutenant A, and his reasons therefor.

Lieut. A dropped back to his two men and whispered:

We will ride towards those fellows at a walk. Should they prove to be hostile, I will charge. Be ready to go with me. Do not speak.

He then rode forward noiselessly at a walk.

Reasons

This is most likely Corporal X and his party, but it must be quickly and silently identified. To go quietly to

meet it, will make a mistake in identification impossible, and will avoid any possibility of two Blue patrols engaging in an encounter with each other in the dark. Should the party prove to be hostile, it will most likely think Lieut. A's party a friendly one, till it is suddenly surprised by a charge and so scattered as to enable the Blue patrol to escape. Lieut. A's best route back to his rendezvous point is by the road beyond the point where he will meet the approaching party. A sudden charge would probably open that route, and would not, in case of failure, make it much more difficult to go back to 567, ford the stream near the orchard, and return to his party by that route.

Another line of action would have been to halt and wait to see whether the other party turned west at the road-junction; thus giving additional color to the supposition that it was Corporal X. In circumstances such as these, a quick decision, followed by bold action on the line adopted, is of more importance than a fine balancing of the advantages and disadvantages of the different possible courses of action.

Situation (continued) :

The party developed to be hostile, was charged, and retreated rapidly to the south. At Table Rock School-house the enemy took the branch of the road that leads to the southwest, and Lieut. A halted his men. One of the enemy, on a slow horse, was captured. He was disarmed, and the patrol quickly returned with the prisoner to the rendezvous, Lieut. A questioning him en route. Owing to imperfect knowledge of the foreign language, all Lieut. A could learn was that the prisoner belonged to the 1st Red Cavalry; that he had been a member of the patrol that was keeping up connection between different parts of his squadron, which was on contact duty; and that the prisoner's regiment, starting from Baltimore, had been marching for the past two days, but that he did not know where any part of it, except his squadron, was tonight.

On reaching the rendezvous, Corporal X was found there. He had been up to the crossroads (608) as directed, found no one there, and had returned without incident,

probably having passed the road-junction where Lieut. A encountered the hostile patrol a few moments before that occurrence.

At 1:45 a. m., Private T, who had been with Sergt. Y, returned alone and reported that the remainder of his party had been captured. Sergt. Y, he reported, had turned south, after reaching the main road (Texas), and had advanced about a mile when the party was challenged just as it stumbled upon a hostile bivouac. Private T saw a long line of horses there, he thinks more than 100, with men bivouacked beside them. His party hastily retreated, pursued by mounted men; but before it regained the cross-road, another hostile party rode into it from the north. He escaped by jumping his horse over a fence beside the road, and, after some wandering, returned to the rendezvous. The others were captured.

1:45 a. m.

Required:

Further actions and orders of Lieutenant A.

By the aid of his flash light held under a slicker Lieut. A wrote the following message:

From-----Patrol 1st Cav.
At-----Near TABLE ROCK STATION
1 July-----2:00 A. M. -----No. 1.

To Commander, CARLISLE.

Hostile cavalry is observing the crossing of the CONEWAGO north of GETTYSBURG. I saw about 20 hostile cavalry at TABLE ROCK bridge. Private T saw about a hostile squadron (foreign) bivouacked just west of GOLDENVILLE. Have encountered hostile connecting patrols south of the CONEWAGO on both roads to CARLISLE. Prisoner from 1st Red Cavalry, sent herewith, reports his regiment marched from BALTIMORE the 29th. Have lost Sergt. Y and Pvt. --- captured.

I go south.

A,

Lieut.

He then ordered Private T and Private—— (whose horse is weakening):

Take this prisoner in charge, move northeast until you strike the main road by which we came, then go to Center Mills. There, telephone to our detachment headquarters the following message: 'This is Lieut. A's patrol. Lieut A found hostile cavalry observing the crossings of the Conewago with a hostile squadron near Goldenville in their support.

I am bringing back a prisoner from 1st Red Cavalry. Lieut A is going south.' After telephoning go on back and deliver the prisoner and this written message to the first Blue officer you encounter and ask him to help you. If you are in danger of capture at any time, destroy the message and give instead the one I told you to telephone. When you are relieved of the prisoner rejoin your squadron. Move at alternate walk and trot after reaching the main road. Repeat to me the message you are to telephone. All right, now repeat your instructions. All right. Move out.

2:40 a. m. The horses were then offered water, and the patrol mounted and moved out in the formation:—Lieut. A and one private---distance 100 yards---Corporal X and three privates-- -distance 100 yards-- - one private. The patrol moved south across country till the Mummasburg—Hunt-erstown road had been crossed and then took the main road towards Gettysburg. At 2:40 a. m., the vicinity of hill 527 was reached, and Lieut. A decided to give his horses a rest and feed, and wait for daylight.

(Horses can do more than these animals have done, but they have already had to stand the heat of yesterday, and then work nearly all night. To keep them in condition for further severe exertion, they must have a rest now. With all the rest and care he can give them, Lieut. A's horses will be so exhausted by a few days of this kind of work, that they will require weeks to recover. If not given frequent rests, feed and, above all, in this hot weather, water, it will take but a few hours to so exhaust them, that they will be incapable of taking a fast gait for more than a moment or two, and thus will be rendered entirely useless in an emergency).

Lieut. A went to the farm house south of hill 527, which is off the main road, woke the farmer, and obtained some hay which was carried inside the small orchard. He then placed one man on watch, had the others loosen cinchas, feed the hay to their horses, and rub the horses' legs. (Oats could not be safely fed until the horses had rested and cooled. Hay will not hurt them now, and will partially fill their stomachs and blunt their appetites, so that they will not bolt the oats when fed a little later. The horses could graze at this time of the year, but when hay is available, it should be fed, as being less likely to cause running of the bowels and consequent weakness).

The men were then directed to eat their cooked meal, feed to the horses the oats they had with them, and rest till called; the man on watch being relieved from time to time.

Having quickly given orders for this, Lieut. A, while eating his own meal, talked with the farmer and from him learned the following:

Hostile cavalry yesterday afternoon requisitioned a wagon load of grain from the farm; a large force of cavalry and artillery camped just north of Gettysburg at dark last night, their bivouac being visible from the attic windows of the house; the hostile forces came from the south-east, the main body arriving at Gettysburg about 2:00 p. m.

Accompanied by the farmer, Lieut. A went to the upper windows. From there he could see enough camp fires to be sure the bivouac was still occupied.

Required:

Decision of Lieutenant A and his reasons.

Lieutenant A decides to remain as at present till daylight, allowing his horses and men to rest as previously planned.

Reasons

Lieut. A, at daylight, which will begin in about an hour, can learn much by observation from his present location, and indications are that he will be able, from here, to get information back to the command. Should he go further toward the hostile camp, he is in danger of encountering the hostile exterior guard, runs additional risk of capture, and may so arouse the hostile observing parties as to jeopardize any chance of further success.

Having come to a decision that his horses and men need rest, he should stick to it. There is nothing which so quickly exhausts and demoralizes a command, be it large or small, as constant changes of plan by the commander. Having once come to a decision, a commander should stick to it till absolutely forced to change.

Situation (continued) :

As day began to break, and the details of the terrain could be seen, Lieut. A had his patrol move to the small woods 500 yards northeast of hill 527 and remain in hiding there. Accompanied by the farmer, he remained in observation of the camp. An orderly, tying his horse and that of the lieutenant in a shed near the house, kept a sharp lookout to prevent a surprise by any hostile party.

While waiting for something to happen in the hostile bivouac, Lieut. A wrote the following message in triplicate.

From ---- Patrol 1st Cav.
At ---- 2 mi. north of GETTYSBURG, PA.
1 July-----,----- A. M. No. 2.

To Commander, CARLISLE.

My No. 1 reported hostile cavalry observing line of CONEWAGO. Hostile cavalry accompanied by artillery, bivouacked last night just north of GETTYSBURG. I estimate -----

After daylight the enemy had breakfast, saddled up, and, what appeared to be an advance guard, started north a little later.

Through his glasses, Lieut. A was never able to see the whole bivouac, on account of intervening objects; but he could see that such a bivouac was on the small hill near the almshouse and, from the portions he could observe, was able to tell approximately its whole size. By 4:15 a. m., he had added to his written messages: I estimate one brigade of cavalry and one battery, from what I can see at a distance of two miles.

As soon as the hostile advance guard began to move
4:45 a. m. out at 4:45 a. m., Lieut. A added to his messages: Hostile advance guard has just started north. I remain in observation, then signed the messages, filled in the time in their date lines and hastened to his horse.

Quickly mounting, Lieut. A and his orderly, screened by the house and the orchard, galloped to the patrol where Lieut. A ordered:

To Pvt. R:

You and Private ----- take this message. Ride at alternate trot and gallop. Go northeast along the bed of this stream till you come to its head, then northwest from there to Center Mills. At Center Mills get fresh horses, at the place I pointed out to you while we were there, and continue on by the main road toward Carlisle till you meet your squadron. If you are in danger of capture, destroy the

message and make this verbal report: 'Hostile cavalry brigade with a battery marched north from Gettysburg at 5:00 a. m.' While you are changing horses at Carlisle try to telephone that same message to headquarters at Carlisle. Each of you repeat the message. All right, mount and move out.

To Corporal X:

You and Private ----- take this message. Ride at about six miles per hour, unless you can later get fresh horses, when you may go as fast as the ground permits. Take this by road to the northeast and then go by the pike that leads in the same direction. When approaching the Conewago, keep off the roads and cross by fording. Near Plainview (pointed out on the corporal's sketch) turn northwest. Go east of Chestnut Hill and then work toward the Carlisle road. Get the message to headquarters at Carlisle, and to our squadron. Ask any Blue officer to assist you. If you are in danger of capture, destroy the message, and in its place make this report: 'Hostile cavalry brigade with a battery marched north from Gettysburg at 5:00 a. m.' Repeat the message. All right, move out.

To the remaining two privates:

Mount and follow me.

Lieut. A followed the wooded stream lines, keeping as much as possible under their cover, and moved at alternate trot and gallop, first southeast to the stream fork, then northeast to the next fork, then along the south branch of that fork to the foot of Granite Hill. On Granite Hill, the horses were held under cover of the woods, while Lieut. A spent twenty minutes in observing through his glasses in all directions. He saw nothing except that on the Gettysburg—Center Mills road clouds of dust, gradually moving north, showed that the lieutenant had not been mistaken in believing the party, he observed going north, to be an advance guard. He was relieved to observe this, as he had previously had to report from indications only; a thing that should not be done if verification is possible before the report must be sent. Otherwise, the indications only should be reported, not the conclusions drawn from them. After sending off the report from near hill 527, Lieut. A realized that the hostile party moving north might be an independent party, or a flank guard. That his statement that it was an advance guard, and the verbal reports he had ordered, to the effect that the whole hostile force was moving north, were both unjustified. It requires a cool head to avoid making such unjustified reports, which may lead a superior commander into making most serious tactical

errors. From Granite Hill Lieut. A moved south and, by inquiry among the inhabitants, learned that the enemy came yesterday by the Baltimore Pike; so he turned south-east by that route, reaching Littlestown without incident at 8:00 a. m. Here it was learned that wire communication had been interrupted in all directions, but that no enemy had been seen or heard of since noon yesterday, when the tail of a hostile cavalry brigade accompanied by artillery had passed through the town going towards Gettysburg. He also learned that there were several automobiles in the town.

Required:

Further action of Lieut. A.

Lieut. A had his men care for and feed the horses in Littlestown, and then rest, while the citizens kept watch to see that no enemy approached unobserved. He then assembled several citizens who had automobiles, and induced them to ride out in all directions. They were instructed to go about twenty miles, find out from the inhabitants whether or not any enemy had been seen, learn where wire communication with Carlisle could be obtained, and then return and report. In case any enemy should be encountered, they were to give business in the nearest town as their reason for being out; to remain silent about Lieut. A's patrol; but to tell about having seen hostile cavalry, in order to give an air of truth to their statements.

Situation (continued):

By 11:00 a. m., Lieut. A learned that no enemy could be found on any road within twenty miles of Littlestown; that from Spring Grove, fifteen miles northeast of Littlestown, the wires were open to Carlisle; and that the last of the enemy had left Gettysburg before 9:30 a. m., when one of the automobiles passed through that place, all having gone north according to the reports of inhabitants.

Required:

Lieut. A's estimate of the situation (brief and informal) and his decision.

Lieut. A estimates that a hostile cavalry brigade with a battery is making either a raid or a reconnaissance; that it is not followed by other troops; and that the alteration in the direction of its march on leaving Gettysburg was made either in compliance with fresh orders received, the information they had gathered, or a desire to confuse the Blues and thus gain freedom of action, while spreading alarm over a wide area. As main roads lead in all directions from Gettysburg, the stop of the Reds at that place would not indicate their objective; and, had they originally intended moving toward Carlisle, advance by way of Gettysburg would thus be advantageous, and would leave the direct Carlisle—Baltimore road available for a return journey.

With jaded horses and tired men, Lieut. A cannot proceed, mounted, far enough to do any service. He can go by motor to Spring Grove in an hour and report direct to his commander by wire. From the rear of the hostile force, he is in a position to learn much, and able to transmit it by motor and wire. It may be that the commander will desire him to remain in rear of the enemy; on the other hand, some other service may be more important.

Decision

To leave his patrol to rest in Littlestown while he goes by auto to Spring Grove and reports by wire to the commander.

Part V—Reconnaissance and Flank Protection by a Squadron

Reconnaissance and Flank Protection by a Squadron

General Situation:

The Conewago is the boundary between two small hostile states—Red, north; Blue, south. War was declared Nov. 24th.

Special Situation (Blue):

On the night of Nov. 24th, orders were received at Gettysburg for the troops at that place, consisting of 1st Inf. Brigade, 1st Field Artillery Battalion, and 1st Squadron, 1st Cavalry, to move rapidly to Carlisle and destroy the important railroad junction at that place (Carlisle is 30 miles north of Gettysburg. Both wagon road and railroad directly connect the two places).

At 1:00 a. m., Nov. 25th, the detachment commander gave Major A, commanding 1st Blue Squadron, the following instructions:

Our detachment is ordered to march to Carlisle and destroy the railroad junction at that place. Carlisle is known to be garrisoned by not less than 1,000 of the enemy.

The detachment will march at 6:00 a. m. by the Gettysburg—Table Rock—Center Mills—Carlisle road. I expect to march about 15 miles today.

Your squadron will march at 5:30 a. m. You will reconnoiter sufficiently far in advance of the brigade to give ample security, but I do not desire to alarm the enemy unnecessarily, by the appearance of your squadron beyond points which must be occupied to provide security for the night.

The march order, when issued, will designate your squadron as independent cavalry.

One non-commissioned officer and nine troopers will report to the Brigade Adjutant at 5:45 a. m.

I will march at the head of the main body.

NOTE: The ground is bare and damp, temperature 40 degrees, weather clear.

The officers of the squadron have the $\frac{1}{62500}$ Geological Survey Map.

Required:

- (a) Major A's orders for the march, exactly as issued.

(b) Briefly, the reasons for the dispositions made.

To his adjutant, verbally:

Notify the troops that breakfast will be at 4:30 a. m., and that the troops will be formed ready to march at 5:25 a. m. All officers will report for orders at 5:15 a. m.

Have 2d Lieut. B and Sergt. C of Troop A report to me now for orders.

To Lieut. B and Sergt. C, on their arrival, verbally:

It is reported that Carlisle, about 30 miles north of here, is occupied by the enemy. Our detachment marches today at 6:00 a. m., on Carlisle, by the Gettysburg—Table Rock—Center Mills—Carlisle road, but will advance only about 15 miles today.

Our squadron will march in advance of the detachment, but will not approach nearer than ten miles to Carlisle.

Lieut. B, you will obtain six selected men from your troop and march at 4:30 a. m., by way of Plainview and Heidlersburg, and thence generally north, keeping several miles east of the route of the detachment. I desire early information of the movements of any hostile bodies larger than patrols. If any such body is discovered, I wish to know its size and the direction of its movement. I shall expect a report at the crossroads two miles north of the Conewago, on the Table Rock—Center Mills road, covering the following points: conditions along your route for at least five miles north of the Conewago; state of roads and bridges; information of the enemy. I expect to reach that crossroad about 7:15 or 7:30 a. m. Should I move on before a message is received from you, I shall leave a post there to direct messengers. After this first report, send messages only when you have something of importance to report. Keep concealed and do not approach closer than five or six miles to Carlisle. Return to the squadron by dark, before which time new patrols will be sent out. Unless the action of the enemy prevents, a post for directing messengers and returning patrols will be established where the railroad crosses the Center Mills—Carlisle road $3\frac{1}{2}$ miles north of Center Mills.

To Sergt. C, similar orders were given, except that he was sent by way of Biglerville—Brysonia—Bendersville. (Bendersville is four miles northeast of Brysonia).

To assembled officers at 5:15 a. m.:

It has been learned that the enemy, at least 1,000 strong, occupies Carlisle. Our detachment marches at 8:00 a. m. on Carlisle, by the Gettysburg—Table Rock—Center Mills—Carlisle road, but will advance only 15 miles today. To avoid unnecessarily alarming the enemy, our patrols should not go closer than five or six miles to Carlisle today, and should keep concealed when beyond the point where the detachment will camp.

Lieut. B and Sergt. C are now out with patrols well to the flanks of our line of march. Both patrols will send reports to meet the squadron about two miles north of the Conewago.

Troop A will send one non-commissioned officer and nine men to report to the Brigade Adjutant at 5:45 a. m.

This squadron, as independent cavalry, marches at once by the route to be taken by the detachment.

Troop A (less detachments) will constitute the advance guard. It will keep a small patrol two or three miles to its front. The advance guard should average about four miles per hour, including halts.

The main body, in the order Troops B, C, and D will follow the advance guard at about half a mile.

All wheeled transportation will join the Detachment trains.

I will ride at the head of the main body.

Reasons

The ordinary routine would not call for such an early breakfast. Horses, also, must be fed earlier than usual. Troops must, therefore, be notified at once of the intended march, so that the cooks and stable crews may attend to these matters in time.

Lieut. B and Sergt. C are to start earlier than the squadron. They, also, must be notified at once, so they can secure and inspect their details, feed their horses, and have breakfast for their men in advance of the rest of the squadron.

It takes time for patrols to do their work, and it also takes time for their messages to be transmitted to the commander. To permit information to be gathered by patrols and transmitted to the commander in time to be of use to him, these patrols must have an early start, or the rate of advance of the column must be very slow; or time allowed by a combination of these two methods. Patrols do not go at a fast gait direct to the only point from which they may see anything, arrive there at the exact time when the most can be seen, and send a message at high speed to the exact point where the commander will have just arrived to receive it. Troop horses are not of a quality to stand this kind of pace. The patrol has to search for its information, spending much time in quiet observation from available points before anything is seen; and probably moving to verify what it has guessed from the few things observed. Messengers cannot find the most direct route. Accidents happen to horses. Bridges are found destroyed or fords impassable, and a route has to be searched for and found. The commander has to be hunted up after the messenger does get in contact with some troops of the column. If these things are not considered, the commander's patrols may gain some information, but they will never be able to transmit it in time to be useful.

While, in general, patrols do not send in messages unless some positive information has been gained, in this situation it is desirable to have reports as to the condition of the roads and bridges in the valley of the Conewago, and to know that the patrols, on crossing the border, have found no hostile troops. For these reasons, Lieut. B and Sergt. C are ordered to send messages to meet the squadron.

At least six men must go with the leader of each of the above patrols, as a message requiring a double messenger (in hostile country) is required from each patrol; also, enough men to keep up the observation, after one additional message has been sent, should be provided. As patrols of this size will probably just be able to do the work required of them, they should not be larger. Larger patrols are more conspicuous and, what is worse, the detachment of large patrols soon greatly depletes the effective strength of the main fighting force.

Until the enemy has been encountered, it is best to keep a small patrol well in front of the advance guard. Such a patrol will greatly facilitate the orderly march of the column. Knowing that the country for two or three miles in front of the advance guard is passable, apparently free of the enemy, and contains no important and unexpected conditions to be met by the command, the commander can designate crossroads in advance where patrols are to send reports; can make his march at a regulated gait; can stop to water, in security, at the most favorable place; and can be advised of broken bridges or impassable places in the road in time to turn the column off by a passable route without counter-marching. Such a patrol lends security to the column, but, above all, it conduces to an orderly, well regulated march, which conserves the strength of the command.

It is quite possible that the advance guard commander would send this patrol ahead without specific orders; but the practice of sending such a patrol ahead of the advance guard is not sufficiently well established in our service to make it certain that he would do so. Hence, Major A gives specific instructions to the advance guard commander to have a small patrol precede the advance guard.

When the commander marches at the head of the main body, it is usually better to tell the advance guard commander at what rate to march, rather than impose on him the very difficult task of regulating his march on the head of the main body. The latter method is difficult and unsatisfactory, and requires the advance guard commander to keep his attention to the rear instead of to the front, where it should be centered.

When near the enemy, cavalry commands smaller than a brigade must not be hampered by wheeled transportation. If a severe encounter is to be anticipated, extra ammunition must be issued before starting and carried on the horses. If supplies cannot be brought up in the evening, the cavalry must live off the country. The mission, however, must be borne in mind when making a decision about transportation. For example, a squadron sent to a distance to work some particular destruction to the enemy's line of communications, might be obliged to carry with it the necessary tools and explosives, even though the only practicable method of so doing would be in wagons.

Situation (continued) :

At 5:30 a. m., the squadron started pursuant to above order.

Required:

Conduct of the advance guard until a point two miles north of the Conewago is reached, nothing of importance having been discovered in the meanwhile.

At 5:30 a. m., Captain A, commanding Troop A, mounts his troop and issues the following order:

To Troop, verbally:

Our detachment marches north today by the main road (pointing) which passes through the villages of Table Rock and Center Mills and leads to Carlisle, about 30 miles north of here and garrisoned by the enemy. It is called the Carlisle Road.

Our squadron, as independent cavalry, precedes the detachment by a few miles and marches by the route that will be taken by the detachment. The squadron will make four miles per hour, including halts.

This troop will be the advance guard for the squadron.

Lieut. B and Sergt. C, with patrols, are now out to the flanks of our route.

Corporal X, with four men, you will go ahead of the troop, making about six miles per hour till Conewago Creek is crossed, and thereafter about four miles per hour. About one mile north of Gettysburg the road forks, take the right hand road which goes through Table Rock and Center Mills. You will give me prompt warning of the appearance of any hostile troops and also promptly report any impassable places in the road, or information of anything else which will interfere with the march of the squadron. If not recalled before that time, you will halt about ten miles north of Conewago Creek and send a messenger for orders. Move out.

Captain A then placed himself at the head of the troop and commanded, Right by twos—March.

The country around Gettysburg is friendly. If any enemy were in the immediate vicinity, his presence would have been reported. The advance guard formation will therefore be gradually assumed, but need not be fully developed for the first few miles. To send out flankers or flank patrols, at first, will unnecessarily weary that many men and horses.

Cavalry ordinarily marches in column of twos when far from the enemy, and when the number of troops that must use the road is not so large as to necessitate shortening the column. This formation is less fatiguing to both men and horses.

When the roadfork, where two Carlisle roads branch, came in sight, Captain A ordered:

Sergt. T, we will halt here for ten minutes. Take four men and go ahead about 400 yards as march outpost. When the march is resumed you will act as point, keeping about 400 yards ahead of the troop. I will send out connecting files.

Then to one of his trumpeters:

My compliments to Major A and say that the advance guard is halting for ten minutes. After delivering the message return to me here.

Captain A then signalled, Halt—Dismount, and ordered:

Corporal W, take three men and follow that road which branches off to the left. March on that road. It goes almost due north till you reach Bendersville, which is nearly ten miles from here. You will pass through a small town, called Biglerville, about a mile north of the Conewago. Do not confuse the two places. If nothing has happened by the time you reach Bendersville, you will bear to the east till you reach the road on which the squadron is marching. You may encounter some part of Sergt. C's patrol which is operating in that direction. Make about five miles per hour.

I want information of the appearance of any parties of the enemy. Also, a report on the condition of the bridge over the Cone-

wago and the condition of the roads. After you are well across the Conewago I want to hear from you, whether you have anything to report or not. You can send a single messenger, as the squadron will not be far from you. The road on which the squadron is marching will never be over two miles to the east of your route. If you make five miles per hour, any messenger you send should reach any point on the squadron's route at about the same time the squadron reaches the same point.

About ten minutes after halting, Captain A signalled, Mount—Forward—March. He moved at a trot, from time to time, when road conditions warranted it.

In this way, he is progressing at about five miles per hour while moving. This will allow for hourly halts when a desirable location is reached, and will also allow for a stop to water the horses when they have marched far enough to drink well. In this way his rate of march will average about the desired four miles per hour.

The "hourly halts" will not be made exactly at a definite time, as is done in a long column, but when a defensible locality is reached after the time for such a halt.

At the road junction, two miles north of Gettysburg, a patrol, of Corporal S and three men, was sent out to go by way of Goodintent School and Bender's Church, with orders similar to those of Corporal W's patrol.

Troop A consisted of 3 officers and 86 men. They were distributed as follows:

With the wagons—Q. M. Sergt., two cooks, wagoner—	4	
Captain's trumpeters	2	
In ranks, 1st plat., Lieut. D and 20 men—	20	and 1 officer
2d " 1st Sergt., commanding, 20 men—	21	
3d " Sergt. R., commanding, 18 men—	19	
4th " Lieut. B, 20 men	20	and 1 officer
	<hr/>	
	86	

At this time they are distributed as follows:

Patrol to northeast, Lieut. B and 6 men—	6	men and 1 officer
" " northwest, Sergt. C's patrol—	7	"
At Brigade Headquarters—	10	"
	<hr/>	
	23	

The above were all taken from the fourth platoon, except three men required to complete the quota for Brigade Headquarters, taken from the third platoon; thus reducing that platoon to 16 men.

Later there were sent out :

Patrol to front.....	5	men
Point	5	"
Patrol via Bendersville.....	4	"
" " Bender's Church.....	4	"
	<hr/>	
	18	men

These details used up the third platoon and required one additional man from the second platoon. So out of his troop, Captain A now has left with him one officer, the two trumpeters, and the first and second platoons, less one man on patrol and two connecting files.

When Captain A, at the head of the main body of his troop, reached the farm house on top of the ridge 500 yards south of Table Rock School House ($4\frac{3}{4}$ miles north of Gettysburg) he signalled, Halt, and ordered :

Sergt. R, take two fours from the 2d Platoon as advance party from here on. For the present, precede the troop, water when you cross the creek ahead, and then go on to the top of that hill (pointing to hill 646, 1200 yards north of Table Rock—see 3" map) and act as march outpost while the troop waters. Send patrols to reconnoiter one-half mile to each flank of your route as you ascend the opposite slope of this valley. Halt on top of the hill I pointed out and remain there till ordered to move forward. The point is placed under your orders. Notify Sergt. T to that effect.

Note: The map shows in this vicinity two hills 646, and four hills 647. When one is mentioned, the student should be sure he finds the right one.

Then to Lieut. D :

Take two orderlies with you and ride northeast behind this ridge. Thoroughly reconnoiter, through your glasses, the valley of the Conewago. Rejoin me at Table Rock, where I will be in about twenty minutes. (Lieut. D rejoined at Table Rock having observed nothing).

Here we have illustrated the advantage of Major A's method of giving his advance guard orders to make a certain average speed; and then allowing the advance guard to suit its march to conditions. A march in set formation, conducted by a commander at the head of the main body, would not permit of a valley like this being properly reconnoitered, and of placing troops of the command on the opposite crest before the whole squadron was badly exposed to unexpected

artillery, or even infantry fire. In such a formation, with a commander striving to keep set distances, the main body of the squadron might easily be surprised by fire at 500 yards from an enemy concealed in the small woods 600 yards west of Table Rock, whose presence there the advance guard had had no chance to discover, and against whom it would be very difficult to take effective action.

Situation (continued) :

The march of the advance guard continued without incident. Captain A halted the bulk of the troop on hill 646 (1200 yards north of Table Rock), with the advance party on hill 647 (one-half mile beyond), while the squadron was watering near the ridge at Table Rock.

While on hill 646, Captain A, at 7:30 a. m., received the following message by two men from Corporal X's patrol. (This message was sent from Mt. Olivet School House—3" map).

At 7:00 a. m., two long railroad trains were unloading Red troops at Center Mills Station. While I was watching them detrain, a hostile squadron, escorting a battery, came into Center Mills from the north. All the troops of the hostile squadron were noticeably smaller than our troops. I will continue in observation, falling back toward the squadron if the enemy advances.

Required:

Action of the advance guard commander.

Captain A to the messengers from Corpl. X :

Take your message on to Major A, who is near the bridge about one-half mile behind us. Report to Major A that I am advancing to the next ridge ahead. Rejoin the troop when Major A is through with you.

Captain A then signalled to Sergt. R (commanding the advance party, now on hill 647) : Forward—Trot—March. He then commanded: Mount—Forward—March, and after descending the steep slope, Trot—March.

He halted the troop behind the crest of hill 647, that he might take a long look to the north through his glasses before exposing the bulk of his troop in the broad valley beyond.

Situation (continued) :

As Captain A dismounted to look through his glasses, Corporal S's patrol rode up, having been directed back from 576 by Sergeant R. Corporal S reported that there was no bridge, but a ford, at the crossing of the Conewago about one-half mile southeast of Bender's Church. The ford was in good condition, water about three feet deep.

Looking through his glasses, Captain A sees the following: Two Blue troopers trotting east about one-quarter of a mile west of 582; Sergeant R's party halted near 582; two or three Blue troopers, hotly pursued by a small party of Reds, coming down the slope about 600 yards north of 582. (It later develops that the two troopers seen approaching 582 from the west were messengers from Sergeant C, carrying also a message from Corporal W. It was some moments, however, before this was learned).

Required:

Captain A's actions and reasons therefor.

Captain A mounted his horse and commanded, Forward—Gallop—March.

Reasons

It is the business of the advance guard to clear the way for the main body. This can be done only by offensive action. In this case, offensive action appears doubly important because it is necessary to gain working room for the detachment north of the Conewago. Now at 7:35 a. m., the head of the Blue infantry should be near 608, about one and one-half miles south of the crossing of the Conewago at Table Rock. This assumes the infantry to have marched three miles per hour, while in motion, and to have made one halt. The enemy in strength is known to be only a short distance away. If the enemy advances, it is probable that the squadron will have to fight a delaying action to enable the infantry to cross the Conewago before the crossings of that stream come under hostile fire. Each succeeding height to the north which is secured will be an advantage. On the other hand, *as the enemy is known to have artillery*, the squadron cannot erpose itself on the road in the broad valley

north of hill 647 till smaller bodies of Blue troops hold the ridge beyond. Captain A made a try for these heights—it would not be equally advisable for Major A to risk the bulk of his squadron in the same way.

Situation (continued) :

As Captain A passed 576, heavy firing was heard to his front, the sound of the shots showing that Sergeant R was engaged in dismounted action with a hostile force which had a greater volume of fire.

Required:

Captain A's action and his reasons.

Captain A stopped his troop, cut the fence and turned out of the road westward, halting his men behind the nose just northwest of 576. Leaving Lieutenant D in command, he galloped forward through the fields toward Sergeant R's men.

Reasons

Evidently the road ahead of Captain A will be under fire. Should he continue forward on the road, he will suffer severe losses with nothing to be gained thereby. His attempt to get to the heights north of 582, ahead of the enemy, has failed, but the attempt was nevertheless justified. With the enemy, apparently in some force, already holding these heights, Captain A, by moving to the nose west of 576, will be in a stronger position, suffer less loss, gain the ability to maneuver freely, and still command the road. He gallops to the front so he can see what is going on, and thus be able to plan for his next move. Lieutenant D will be able to take immediate action with the bulk of the troop, should anything unexpected happen while Captain A is gone.

As soon as the troop was halted behind the nose, a combat patrol should have been sent to the higher ground just west of the troop. Perhaps Lieutenant D will have the sense and initiative to do this; if not, it will be one of those things that are of no importance unless some move of the enemy brings out the omission, in which case both Captain A and Lieutenant D will be held to have been inexcusably

negligent. In the hurry of a meeting engagement, such omissions are not infrequent with the best troops. They are sometimes very costly; so a commander must make every effort to avoid making them, thereby reducing the risks he runs to a minimum.

Situation (continued) :

Major A, on receiving the message transmitted from Corporal X's patrol, ordered the squadron, under Captain B, senior captain, to follow at a trot, and himself galloped ahead to join the advance guard. He reached hill 647 just after Captain A had started forward at a gallop. Major A halted to view the scene. He saw Sergeant R's party behind the farm buildings at 582, and a moment later saw it rush out and attack some Reds who were pursuing six or seven Blues down the road. (Corporal X's party having joined the point in the valley, both were swept back on Sergeant R. Major A, however, knows only what he sees). Upon Sergeant R's mounted attack, the Reds retreated north on the road, and in a moment, a hostile party of a platoon or more opened fire from near the orchard 650 yards north of 582. Sergeant R's party hastily took cover behind the farm buildings, dismounted and opened fire.

As the squadron was heard trotting up in the rear, Major A signalled Halt, and continued in observation. In a few moments Captain A was observed to have turned westward off the road. (Sergeant R's party now numbers: point five men; advance party, nine men; messengers from the west, two men—16 men, less such losses as he has suffered up to this time). In this study the care of the wounded, burial of the dead, etc., will not be touched upon. It will be good practice for the student to assume a few losses as he goes along, and then decide upon the sanitary measures that should be taken.

As Major A watched, the enemy redoubled his fire and two troops galloped down the slope, off the road, taking shelter in the stream bottom just north of 582, while Sergeant R's party mounted and galloped through the fields to join Troop A's main body.

Required:

Action of Major A and his reasons.

1. Sends combat patrol to hill 586, from there to send scouts toward Friend's Grove S. H.; and another combat patrol to hill 674 (one-half mile east of Biglerville), to send scouts from there toward Guernsey.

2. Forms squadron in mass, off the road, and orders all fences in the vicinity cut, to permit easy passage of troops in any direction.

3. Directs his adjutant:

Tell Captain A to occupy that nose (the one 1000 yards north-west of hill 647, where Major A now stands) dismounted. The squadron will stay here and will support Captain A if he is attacked.

Reasons

Knowledge that the enemy has infantry and artillery close by makes it unwise for Major A to attack the hostile cavalry in the low ground, which is commanded from the heights held by the enemy. The same knowledge makes it unwise for him to engage in the obvious turning movement. Such a turning movement will at once open the road and give the enemy a chance to occupy, unopposed, the heights which command the crossings of the Conewago. For the present, Major A's mission requires him to stay between the enemy and the main body of the Blue detachment. Were the hostile squadron known to be, or strongly suspected of being unsupported, it would be Major A's duty to attack it and drive it off. He should then want to use a method which promised decisive results, not one that would merely result in driving the hostile cavalry from position to position in a long series of delaying actions. For such a quick and decisive result, he would prefer mounted action if he could maneuver the enemy into dispositions that would admit of such action.

Situation (continued):

Up till 8:30 a. m., the following had occurred:

The hostile cavalry at first acted offensively, and it looked for a time as if it might walk into a trap; but at 8:10

a. m., it was observed that it was withdrawing north. Pursuit was prevented by hostile infantry in position at the orchard 650 yards north of 582.

Reports had been received from Lieut. B and Sergt. C showing that, up to 6:30 a. m., no enemy had been discovered in the area three miles north of Heidlersburg, or two miles north of Brysonia.

Sergt. C's messengers brought a message from Corpl. W, dated Biglerville, 7:00 a. m., saying that he had so far encountered no enemy, and that the bridge over Conewago Creek, south of Biglerville, was intact and the roads good. Nothing else had been heard from Corporal W's patrol.

The following members of Troop A have now rejoined, viz:

Messengers from Lieut. B	2
" " Sergt. C	2
Corpl. X and his patrol	5
Point (Sergt. T)	5
Advance party (Sergt. R)	9
Corpl. S and his patrol	4
	<hr/>
Total	27

The following are still out:

Lieut. B's party	4 and 1 officer
Sergt. C's "	5
Corpl. W's party	4
At Brig. Hq.	10
	<hr/>
Total	23 and 1 officer

Thus, this troop now has its first and second platoons complete and a provisional third platoon, of a strength of 19 men, which is composed of members of the original third and fourth platoons.

Patrols do not always return at the expected time and place. Some are always out, some are lost, and some get captured. If too many detached parties are sent out, or if they are made too strong, the effective strength of an organization is soon dissipated. A balance between what forces must necessarily be detached for reconnaissance and other purposes, and what must be retained to give necessary fighting strength, should always be maintained.

In the above study, the principle of making detachments of such strength as not to break up organizations has at

times been violated. Thus Lieut. B's patrol was given a strength of six men. On the general principle that if half or more of an organization is detached, the whole should be sent, this patrol should have consisted of two fours. But for the purposes of this patrol, selected men and horses were required. If both Lieut. B and Sergeant C had been given two fours, there would have been an unnecessary loss of four men to the troop. Now, in spite of all theories to the contrary, the fours in a troop (squads under the proposed drill regulations) are never permanent. They are constantly changing in time of peace and even more so in time of war. There is always the line of file-closers into which an extra man or two can be introduced, and these extra men can be used the next time a small party is sent out. This principle, though an important one for large organizations where the method of messing, supply, and administration is affected, is seldom of any importance in dealing with fractions of a troop or company; and never in dealing with detachments or fractions of a platoon.

It will be good practice for the student to go over all the detachments made in this study, and decide whether in each case a larger or smaller detachment would have been better; and why.

By 9:00 a. m., Major A had assembled the squadron near hill 647, on the Table Rock—Center Mills road, and had posted one platoon of Troop D, under an officer, about 700 yards south of Guernsey, and the First Platoon of Troop A at Friend's Grove Schoolhouse. Red infantry was in evidence on both sides of the road near the orchard 650 yards north of 582, but did not attempt to advance beyond that point. It appeared to be intrenching. Nothing had been seen of the Red cavalry since it retreated north.

At 9:30 a. m., the detachment commander, from the position of the cavalry on hill 647, on the Table Rock—Center Mills road, issued orders for an attack enveloping the hostile left: one infantry regiment to advance west of the road and one east of the road, with the reserve of one regiment following, echeloned behind the eastern regiment's outer flank.

The orders for the squadron were:

The cavalry will reconnoiter around both hostile flanks and will cover the right flank of our attack.

Just after receiving the above order, Major A, squadron commander, received the following message from the leader of the platoon which was in observation to the right front, and dated 9:35 a. m.:

At 9:05 a. m., the hostile squadron that retreated north from the front of our squadron returned south, moving on Friend's Grove Schoolhouse. Is now at the woods surrounding that schoolhouse and is making defensive preparations. This platoon remains in observation from hill three-quarters of a mile southwest of Friend's Grove Schoolhouse.

Required:

Major A's estimate of the situation, decision, and orders.

Mission

Major A is ordered to "reconnoiter around both flanks and cover the right flank of our attack."

He can have no doubt as to what is intended by the order for reconnaissance. The latter part of his orders, however, require consideration in connection with the situation. The Blue detachment is attacking, intending to envelop the enemy's eastern flank. The hostile cavalry is in a position from which it can attack this enveloping movement either mounted or by fire. If allowed to stay near Friend's Grove Schoolhouse, the hostile cavalry will be a great impediment to the Blue enveloping movement. In order to assure the success of the Blue infantry attack, the Red cavalry must be dislodged. Major A's mission to cover the right flank of our attack, therefore, makes it necessary for him to attack the hostile cavalry and drive it off, or keep it so busy that it cannot interfere with the attack of the Blue infantry.

The Enemy

Major A's immediate enemy is a squadron, reliably reported to be depleted in numbers. That it feels itself weaker than Major A's squadron is shown by its continually taking a defensive attitude and avoiding a decisive action. Like Major A's squadron, it probably has a certain propor-

tion of its strength detached for reconnaissance, etc. It evidently has, as its mission, the protection of the left flank of the hostile position, and it is not likely to be aided by its main body, except by artillery, and, possibly, by infantry fire, should Major A, in making his attack, expose his command.

Our Forces

Major A's squadron has had some slight initial successes and its morale should be good—somewhat better than that of the enemy.

The Blue detachment is forming under cover for a well-organized concerted attack on the hostile position. It has its own duties to attend to, and the detachment commander expects Major A to accomplish, without assistance, his part of the program. Major A should not expect assistance, but he can notify the artillery commander when he is about to launch his attack and request artillery support. He cannot be sure that the circumstances will not be such that the artillery may, at that time, be obliged to use all its fire elsewhere.

Terrain

In general, the terrain consists of a series of ridges, running mostly east and west, parallel to the Conewago, with a branch valley extending north from the Conewago in the region just outside of the left flank of the hostile main position. These ridges offer cover for the formation and advance of the Blue infantry and give good artillery positions. The Blue artillery will most likely be posted behind the 646—Bender's Church ridge and between the points named. It will be 2500 yards from the Red position, and 2800 yards from the grove held by the Red Cavalry.

The valley, just south of ridge 647-586, together with the trees just north of 534, and the valley just east of that point offer good cover for a flank march of the squadron, by which it can uncover the front of its infantry and reach a location from which an attack on the Red cavalry can be launched.

In crossing the valley near 534, it is possible that the hostile artillery may locate the squadron; hence, a formation that is little vulnerable to artillery fire and a fast gait are to be employed there.

The ground southeast of the hostile cavalry position offers good cover for a dismounted attack, or for a mounted turning movement by way of 587 or 632. The woods north of Beatrick will offer concealment and protection for led horses from hostile artillery fire.

There are several wire fences in front of the hostile position, that position is in the edge of the woods, and the enemy is known to be preparing defenses. All these conditions render it probable that, on arriving where the ground toward the enemy can be clearly observed, it will be found that a mounted attack has little prospect of success.

Plans

Major A must make plans for two things—reconnaissance around the hostile flanks, and combat with the hostile cavalry squadron. The reconnaissance around the hostile right and the protection of the Blue left, can be readily provided for by the platoon of Troop D, now 700 yards south of Guernsey.

Under cover of an attack on the hostile cavalry, patrols can probably easily work around to the east and north of the hostile squadron and obtain good information.

For the engagement with the hostile cavalry the following plans may be considered:

(a) Move to the vicinity of hill 586 and from there protect the rear of the Blues' right flank. This does not completely carry out Major A's mission and, in case of a Blue success, leaves the Blue squadron in a poor position from which to take up the pursuit, and the Red squadron in position to best protect its infantry. Rejected.

(b) To move around the Red cavalry and thus turn it out of its selected position, or else gain the Red rear unopposed. All the nearby routes for such a movement are exposed to view, giving the Red cavalry plenty of opportunity to change front or change position to meet the movement. The effect of the Blue squadron's action would be delayed,

united action in conjunction with the infantry attack would be lost, and, in the end, the Blue squadron would still be confronted by its opponent in a selected position.

To move north around Chestnut Hill takes the Blue Cavalry entirely out of the zone of the main action and may well result in keeping the Blue squadron entirely out of the fight at the critical stage, when every man is most needed. Rejected.

(c) To move to the ridge northeast of 534 and engage the Red cavalry by fire only. This is less objectionable, but is playing a safe course for the cavalry at the expense of rendering the most effective coöperation to its infantry. Rejected.

(d) To move to the ridge northeast of 534 and from there launch an attack in coöperation with the infantry attack. This promises to be the most effective course. Until the conditions which exist at the time the attack is launched are known, and the ground in front and flank of the hostile cavalry position has been reconnoitered, the exact nature of such an attack cannot be determined upon. The chances are that it will be a dismounted attack, with a mounted reserve acting by way of 587 as soon as success seems assured. Due to some move of the hostile cavalry in the meanwhile, mounted action may be possible. Mounted action will be preferred, if it has any chance of success, as it is quicker and more effective.

Decision

To issue orders for reconnaissance at once, and then march the squadron under cover, changing formation when necessary, to the ridge northeast of 534, for the purpose of launching a dismounted attack from there. The Blue artillery to be notified when the attack starts and artillery support requested. It will not be relied upon, as the artillery may be otherwise fully occupied.

Orders

To his adjutant, verbally, Send me a non-commissioned officer and two privates for messenger service.

Major A then writes the following message:

From 1st Sq.,
one mile north of TABLE ROCK, PA.,
25 Nov. '15—9:40 A. M., No. 6.

To Lt. Y, Tr. D.

One-half mile south of GUERNSEY.

Our detachment attacks hostile position three-quarters of a mile east of GUERNSEY. Give Gen. A prompt information of any hostile move by way of GUERNSEY. He will be found near the TABLE ROCK—CENTER MILLS road. You will send patrols to reconnoiter in rear of the hostile right.

A,
Major

The above is sent by the non-commissioned officer and the two men as soon as they report.

Major A then orders, verbally, Captain B (senior captain), march the squadron behind this ridge to that hill (pointing to 586). I will meet you there.

Accompanied by his staff and a couple of orderlies, Major then rapidly joins the platoon at hill 586 and orders, verbally: Lieutenant D, the squadron is marching on that woods (pointing to woods one-half mile northeast of 534). Your platoon will precede the squadron. Cut a way one hundred yards broad in each fence and reconnoiter through the woods. I will give you further orders when the squadron reaches the woods.

As Captain B approaches with the squadron, it is formed in column of troops and, after Lieut. D has cut the fences and reconnoitered the woods, it is marched at a trot in column of troops to the woods. This formation is used as being the one least vulnerable to possible artillery fire.

Just before leaving hill 586, Major A selects a non-commissioned officer and two men from the leading troop and orders: Remain here in observation. Notify both General A and myself, promptly, of any movement of the enemy which you are able to observe. General A will likely be found near that hill (pointing to 646).

Arriving at the woods further orders, including those for reconnaissance around the hostile left, will be issued according to the circumstances existing at that time.

Part VI—Cavalry Combat (Squadron)

Situation:

The Pennsylvania—Maryland state line is part of the boundary between hostile states, Red—north, Blue—south. War was declared Oct. 6th. Red troops are concentrating at York. Red infantry is reported near Gettysburg, and about a squadron of Red cavalry was known to be at Littlestown at noon, October 6th.

Blue troops are concentrating at Frederick, and a brigade of Blue infantry at Woodsboro has sent the 3d Battalion, 3d Infantry, to the vicinity of Taneytown to watch the railroad. The 1st Squadron, 1st Cavalry, Major A commanding, is temporarily attached to this brigade.

The squadron camped the night of October 6-7 about three miles east of Harney (800 yards north of hill 567, which locality is just south of the boundary). It had instructions to watch the boundary, but not to cross into Red territory without orders.

At 10:00 p. m., October 6, Major A received the following order from the Brigade Commander, dated Woodsboro, Md., 6 Oct. '13, 9:30 p. m.

It is reliably reported that a squadron of Red Cavalry, coming from the direction of LITTLESTOWN, camped at dusk this evening about one mile southwest of GERMANTOWN; also, that a brigade of Red infantry is now at GETTYSBURG and will probably march tomorrow to LITTLESTOWN. Move early tomorrow, defeat this cavalry, determine the strength of any hostile columns moving from GETTYSBURG towards the east or southeast. Send reports to TANEYTOWN.

In compliance with this order, Major A made an early start and, at 5:45 a. m., October 7, halted the squadron on the Palmer—520 road (roadfork 520 is $1\frac{1}{2}$ miles a little east of south from Germantown, and 300 yards west of D. Spangler), at a point about two miles south of German-town, to await reports from patrols sent out before daylight. The advance guard (1st Platoon, Troop A, Lieut. W.) is at 520, with a patrol of three men at the roadfork just

east of the D. Spangler house; and the point, consisting of one non-commissioned officer and five men, at roadfork 561 (west of 520).

The rest of the squadron (less 2d Platoon, Troop A, on patrol duty) is in column of twos, the head about half way between Palmer and 520. The field and combat trains, under the Squadron Quartermaster and Commissary, have been sent to Taneytown. The extra ammunition in the combat wagon has been issued to the men, and is being carried on the horses. Between 5:45 and 5:50 a. m., Major A, who has his adjutant, sergeant major, and Lieut. W with him, at roadfork 520, receives the following information:

From Sergt. K's patrol, one mile southeast of German-town (roadfork 547):

Baltimore Pike—this vicinity—and road leading from German-town are clear of enemy. I remain in observation.

From Lieut. L's patrol, hill 606 (one mile west of 520):

A squadron of hostile cavalry is just starting to break camp in an open field, three-quarters of a mile northeast of here. There is a farmhouse just north of the camp and another (Collins) several hundred yards to the southwest of the camp. Can see an outguard near the Trustle house. Another outguard was at roadfork (586), three-quarters of a mile north of Trustle, but it has been withdrawn towards the camp. I remain here in observation. (Sent 5:40 a. m.)

From Sergt. M's patrol at woods west of G. Hoffman:

Can see hostile outguard at the G. Hoffman house and another at west edge of woods north of the Strangler house. I remain in observation. (5:30 a. m.)

Required:

1. Major A's estimate of the situation.
2. Major A's action and orders at this time.

Major A has 3" map of Gettysburg with him. Weather fair after a rain—wind from northwest.

Mission

Major A's mission is to defeat the hostile cavalry. Until this is done, his task of finding out what troops are moving from Gettysburg toward the east can not be accomplished.

The Enemy

All reports received seem to confirm the belief that the hostile cavalry consists of but one squadron. If Major A can defeat it, or drive it away, the remainder of the task ought to be easy unless other hostile cavalry should appear on the scene.

The enemy has no artillery, and no machine guns have been reported. His nearest infantry supports were at Gettysburg when last reported. The hour is so early, that there is little likelihood of these having yet left that place.

What are the intentions of the hostile cavalry commander? He has probably been sent to watch the frontier west of Littlestown, or to cover the march of the hostile infantry which, it is reported, will take place today from Gettysburg to Littlestown.

Major A's Forces

Major A can expect no reinforcements. Only about one-fourth of Troop A is absent on patrol duty. Another platoon is in the advance guard.

The roads and weather are excellent. The absence of dust will favor the movements of the Blues. Everything seems to indicate that they are not yet discovered by the Reds. A successful march has been accomplished without mishap. Information of the enemy is definite. The men are in good spirits. To reap the full benefit of these advantages, Major A must attack at once.

The terrain is rolling and in many places wooded, thus favoring dismounted action. Numerous fences would seem to limit the chances for mounted action, though there is considerable open ground near the place where the camp is reported to be. Major A does not need to worry about his line of retreat. His cavalry is so mobile that it can avoid any infantry that is likely to appear. Unless there is more Red cavalry around than has yet been reported, Major A need not fear about his retreat in open country, even if defeated.

Whether discovered or not, Major A must attack. His mission is to defeat the hostile cavalry. He can hope to do this only by offensive action. There are some circumstances

which seem to favor a mounted attack. (Student should see if he can not enumerate them).

Major A would commit a serious error, however, if he decided upon a mounted attack, and gave orders for it at once. Thirty minutes will have elapsed from the time Lt. L made his report, 5:40 a. m., until the Blues get within striking distance.

By the time he arrives at the point from which to launch the attack, the situation may have materially changed. The enemy may have discovered him, and be himself advancing to the attack. The enemy may be marching on the road, across the fields, or even retreating, and a blow ordered now may spend its energy in the air. The Reds may even have taken up a dismounted position in the woods near their camp.

Major A must get closer before giving the order for the attack, so as to be able to make it conform to the conditions which exist at the moment of combat.

What plans are open to him?

(a) He may move straight across country, over hill 606, on the enemy's camp.

(b) He may advance via 520 and across country to 587, then along 587—586 road, and launch his attack from the woods west of 586.

(c) He may advance via 561—588—598, and attack the enemy from southeast.

(d) He may divide his forces and send part of his force by (b) and part by (a) or (c), or part by (c) and the remainder by (a) or (b).

A detour to the north or south might also be made, but either would take too much time, and the squadron would be almost certainly discovered, particularly if the detour was to the north, via 549 and the Germantown—563—C. H. King highway.

Plan (a). As the squadron passes over hill 606, it will be discovered. The hill is too far off to permit dismounted fire to be used effectively against a fleeting target. As soon as fire is opened, the enemy will seek shelter in the adjacent woods, and opportunity for mounted action will be gone. If it is intended to launch a mounted attack from

hill 606, the fences and woods will delay the advance, and give the enemy time to prepare for action.

Plan (b). This plan has much in its favor. By moving northwest from 520, cover can be secured all the way to 587. From 587 to 586, corn shocks, woods, hedges, and other vegetation along the sides of the road will give cover nearly all the way. The wind favors this route as it will blow the sound away from the hostile camp. The hostile outguards, through error or otherwise, have been recalled from 586. The way seems to be open. It is as short in point of time as any other route. If the enemy is defeated, he will be driven west towards the difficult, if not unfordable Rock Creek, and there will be a strong probability of his being cut off from his infantry supports at Gettysburg.

Plan (c). This route is guarded by the hostile detachment at the Trustle house. There are a number of fences to be cut. The worm fences, woods, and slope of the ground to northeast will interfere with dismounted fire, should it be necessary to resort to that form of attack. If the enemy is defeated, he will be driven back towards his infantry supports at Gettysburg, or on the Baltimore Pike.

Plan (d). Major A's force is too small to divide. He can afford to run no chance of *failure to secure coördination*. He must keep his command together and put every man in. As soon as a force is divided, the commander loses more or less control of that part not with him. In this problem, whatever happens will happen quickly; so that Major A should keep his troops in hand until the critical moment arrives.

Plan (b), then, is the one that seems to give the best promise of success.

In approaching 586, the gait will be a brisk trot. If the command moved at a walk, there would be a loss of valuable time. The squadron at a gallop might become elongated and out of hand on the narrow country lane 587—586. Major A should not waste time in riding to hill 606 or in assembling his officers. He has such an accurate map, and the information from Lieut. L is so definite, that he feels that he can act at once.

Decision

To move rapidly, with present advance guard formation, from 520, across country to 587, and thence via 587—586 road, to woods west of 586; and then to attack mounted or dismounted, or by combined mounted and dismounted action, as may be warranted by conditions found to exist upon arrival within striking distance.

Actions and Orders

It is assumed that Lieut. W, the sergeant major, and the squadron adjutant are familiar with the three messages just received, and that the messengers who brought them are still with Major A.

Major A, the squadron adjutant, Lieut. W, and the sergeant major are still at 520 and are familiar with the map, as they have been studying it while awaiting reports. Major A shows them the map and orders:

The squadron will move at once by this route, at a brisk trot, to roadfork 586, (indicating 520—across country—587—586 road on map and pointing out direction on the ground as far as it can be seen). Lieut. W, your platoon will continue to act as advance guard. Have fence cut at 586, and reconnoiter woods just west of there; but do not let your men show themselves west of the woods. Lieut. W, send Captain B (senior captain) word to have main body follow advance guard at 400 yards, in column of fours.

Lieut. X (Sq. Adjt.), you will take the point of the advance guard, now at 561 yonder (pointing to it), and precede Lieutenant W's platoon. You will be under his orders until the squadron reaches 586, when you will join me, turning the point over to the non-commissioned officer now with it.

I will gallop to 561, but will join advance party as it crosses the field toward 587. Move out.

Major A then turns to messenger from Sergeant K and orders:

Go back to Sergeant K and tell him I am going to attack one squadron of the enemy which has been located about two miles west of roadfork at which you left him. Tell him to move northwest, keeping near the Baltimore Pike, and look for hostile troops coming from Gettysburg by that road.

Major A, Lieut. X, the sergeant major and two orderlies, and the messengers from Lieut. L and Sergeant M, then gallop to near 561 and halt under cover.

Major A orders:

Lieut X. Move out.

Then turning to the sergeant major he orders:

Inform Lieut. L. that I attack at once from 586 and desire any new information he may have. Lieut. L's messenger will guide you. Hurry, time is important.

Major A then gallops with his orderly to rejoin Lieut. W and the advance party.

Note: On country roads, cavalry will habitually march in column of twos when the military situation permits; but, as soon as an encounter with the enemy appears probable, it must, at once, shorten its column so as to facilitate deployment when the moment of action arrives. Major A has not yet informed Lieut. W that Lieut. L is to cover the left, as something may happen to prevent the sergeant major from finding Lieut. L. No word is sent to Sergeant K to cover the right, for the messenger may not find that sergeant, and, if he did, the latter's patrol could hardly arrive in the vicinity of 549 in time to perform that function.

Comment

This study is adapted from an old problem used for The Army School of the Line.

In solving this problem, the following were the principal errors committed by students:

1. Many made no special provision for protecting the flanks. Notwithstanding the instructions contained in Cavalry Drill Regulations as to combat patrols, it is believed that specific orders should be given, in important cases, for protecting the flanks.

2. Many issued their attack orders from road junction 520. This is a decided error. The last news of the enemy was from Lieut. L at 5:40 a. m. It will be 6:10 a. m., perhaps later, before you arrive within striking distance. In that time the situation may change very materially. It certainly will do so, if the enemy has discovered the Blue squadron.

Major A can not determine the nature of the attack, nor how it will be made, until he arrives within striking distance. Should he do this, he would run the risk of

precipitating an attack, which did not fit the actual conditions, and which, therefore, would probably result in defeat.

3. Many sent word to the brigade commander as to what was about to happen. The brigade commander himself sent you word where the enemy was to be found, and ordered you to go and attack him. That you are doing it, will be no very important news to him. What he would like to know is how the fight came out. You ought to know this very soon, and will then have some real news for him. If it were a combat of large forces, or one which might last a long time, then it would be proper to send word to the brigade commander.

4. Many assumed that Blue patrols had been seen. These patrols reached points of observation before daylight, and concealed themselves. The chances seemed good that they had not been discovered up to the time the problem opened.

5. In sending messages to Lieut. L and Sergts. K and M, many did not make use of the messengers from them, who, of course, knew where to find them, provided they had not been forced to move in the meantime.

6. Many depended upon Sergt. K with his patrol to protect their right, and sent him word to that effect. It is doubtful he could have come up in time to do so during the attack.

7. Many wasted time sending Major A to hill 606 to look over the country. Major A had an excellent map and very definite information from Lieut. L. He could see very little more from hill 606 than he already knew. It was considered correct to send the adjutant or sergeant major to Lieut. L to find out if the situation had changed; but this could be done without delaying the advance.

8. Many left the squadron halted and assembled troop commanders; some at 561, some at 520, some at B. D. Snyder's, and some even on hill 606. In each of these cases it was considered an error, because time was lost, and because the moment had not arrived for giving the attack order.

Situation (continued):

At 6:12 a. m., Major A has his squadron massed just west of roadfork 586, covered by the woods to the west.

Lieut. W with the advance guard, now reduced to about eight troopers, is about 150 yards to the left front of the squadron. Patrols from the advance guard cover, from concealed positions, the northern, western, and southern edges of the woods (woods north of the Faulk house).

Major A is at the western edge of the timber with his adjutant, sergeant major, and several orderlies.

He sees the Red squadron in an open field about 600 yards to the west. The guidons have their places in column facing east, and a few dismounted men have fallen in alongside the guidons; the other men seem to be busy saddling. The last wagon has just pulled out of the field onto the country lane leading from the farm house just north of the camp to the main highway 400 yards further north (Germantown—563—C. H. King road).

Apparently the enemy does not suspect the presence of the Blue squadron.

Required:**Major A's Orders:**

Major A decides to attack, mounted, and at once. He rides back to the squadron accompanied by his adjutant, sergeant major, and orderlies, sending one orderly to Lieut. W with following order:

Tell Lieutenant W to report to me at the squadron at once.

The squadron is in order from right to left Troops D, C, B, A.

Assuming all captains to be at their posts, Major A signals them to join him in front of the center of the squadron, and issues verbal orders as follows:

The hostile squadron is in an open field about 600 yards west of these woods. The guidons are mounted, but the rest of the men are leading into line or saddling. The guidons are facing this way. The wagons have left camp and gone behind the woods just north of camp towards the main road.

We will attack the hostile squadron, at once, mounted. Troops D and C, Captain D (senior to Captain C) commanding, will form the

attacking line. Capt. D, take advantage of that opening in the woods, 150 yards to our front, and attack the enemy in close order, mounted, as soon as you clear the woods. Lieut. X (Squadron Adjutant) will accompany you to point out the enemy's position.

Capt. B, your troop will be the support, and will follow the attacking line at 150 yards, looking out for the right flank.

Capt. A, your troop (two platoons) will be the reserve, and will follow the attacking line at 400 yards, echeloned behind the left flank. Lieut. W, you, with the former advance guard, will cover the left flank. Signal nearby patrols to join you.

I will be with the reserve. Move out at once.

Comment

(a) Many students lost time sending for troop commanders to come to the western edge of woods. The situation is so clear, that the order to attack can be given at once. The adjutant or sergeant major can be sent to accompany the commander of the attacking line, and point out the enemy to him.

(b) Many gave no task to Lieut. W and his eight men. Give every part of your command something to do.

(c) Many did not protect flanks. (See 1 above).

Part VII—Cavalry Regiment

Situation (Blue):

Conewago Creek divides the Red (northern) and the Blue (southern) states. A Blue division is concentrating 15 miles south of Gettysburg. It having been reported that the enemy was advancing from the northeast, the 1st Blue Cavalry was ordered to move via Littlestown and New Oxford to determine the nature of the hostile movement.

Troops A and B, as contact troops, moved out in advance; Troop A via the valley of Little Conewago, Troop B by the high ridge two to three miles farther west.

At 10:00 a. m., Oct. 5th, when the regiment, marching on the Kingsdale—Littlestown road, has just cleared Kingsdale, Colonel A, commanding the regiment, learned that Troop A had encountered hostile cavalry, estimated at more than a squadron, and was falling back by the 566—Le-fevre road.

(566 is just west of Bashore Mill).

Required:

Colonel A's action at this time and his reasons therefor.

It is to be assumed that Colonel A was marching in regular march formation with an advance guard and the usual attention to covering his flanks. Probably, he would send out patrols to the flanks, from time to time, whenever the ground indicated that they could get a good view, or roads joined his route which could not be efficiently reconnoitered from some nearby high point. This march protection for the column is independent of the contact troops, which are not concerned with protecting the main body of the regiment. His action, then, is to direct his advance guard to march toward Troop A, and to signal for increased gait. If, on account of narrow roads, the regiment has been marching in column of twos, Colonel A will also signal, Form Fours.

Reasons

Contact troops are sent out to find the enemy's forces. They are made strong enough to drive off hostile patrols and thus uncover larger forces. When one such contact troop encounters superior force, it can gain no further information till the superior hostile force is disposed of. It must be reinforced to do this. When one contact troop finds strong opposition and the others do not, the chances are that the main force is on the route where the enemy has developed strength. It would, therefore, be foolish to divide the regiment and run the chance of being defeated in detail.

If, on the other hand, the force uncovered by the contact troop is only a fraction of the hostile force, Colonel A will have great superiority over the few troops of hostile cavalry and can quickly dispose of them; thus having his whole force ready to meet the other forces. To drive off hostile cavalry reported as more than a squadron, it is evident that a fight will be necessary. The more quickly Colonel A can bring on this fight, the less the enemy will be able to prepare for it; so the regiment should be closed up ready for quick action, and the gait increased as much as the terrain permits.

Situation (continued):

Colonel A pushed rapidly forward on the Littlestown—622—623 road with the 1st squadron (less Troops A and B) as advance guard, Major B, commanding.

When Colonel A, at the head of the main body, was about half way between 622 and 623, he saw his advance guard form for a charge just south of hill 636 and charge over the hill. (This point is 800 yards east of the eastern exit of Littlestown).

Required:

Colonel A's action and his reasons therefor.

On seeing the advance guard form for a charge, Colonel A turned the head of the column toward the hill occupied by the advance guard and ordered: Second Squadron, Line

of Fours—Gallop, then to his adjutant: Third Squadron to form Line of Fours at a Gallop one hundred yards in rear of the Second Squadron. Then to the Lieut-Colonel: Lead the regiment at a trot toward that hill (points to the one just left by the advance guard). I will gallop forward to get a look from that hill.

Reasons

The opportunities for a mounted charge are quickly lost if any hesitation or delay occurs. When the advance guard commander saw his opportunity, he probably had no time to wait till he could report to the regimental commander.

Troops which have just engaged in a mounted charge are in great disorder and are peculiarly liable to be overthrown by a counter attack, even by a very small number of formed hostile troops. Whenever nearby cavalry is seen to launch a charge it is, therefore, made the duty of all mounted troops observing the charge to hasten to the support of the charging cavalry, and thus be able to clinch the victory; or in case of a repulse, to cover the reforming of the charging line. There is no time for sending formal messages or requests for assistance; or usually, even to notify adjoining commanders or nearby superiors of the intention to charge.

Colonel A sees that his advance guard is about to engage in mounted combat. He, therefore, orders his troops into a compact formation from which he can quickly act in any direction, moves his troops as rapidly as practicable toward the combat, and himself hastens forward to gain a view of the situation so as to be able to launch his troops in the most favorable direction and formation. He should have marched with the support of his advance guard when action was imminent, for there he could get more prompt information of the enemy and could take the necessary action more quickly and with a better understanding of the situation.

Situation (continued):

Before Colonel A reached hill 636, the advance guard came back over the hill and started to reform.

On reaching the top of the hill Colonel A saw the situation as follows:

Advance guard reforming just behind the crest of the hill.

2d Squadron, in "line of fours", about 500 yards south of hill 636, moving forward at a trot with the machine gun troop on its left.

3d Squadron forming line of fours at a gallop in rear of 2d Squadron.

Troop A, dismounted and deployed on the east shoulder of hill 646 (near Lefevre), firing to the north.

A hostile firing line, about 200 yards long, just leaving the west edge of the woods between hill 636 and road-junction 609, and moving toward hill 636 at a double time.

A mounted column, just appearing over the steep slope which hides from his view the bend of the road 200 yards north of Valley Grove Schoolhouse, is moving southwest at a trot, in column of fours, the head of the column approaching the lane that leads west from 609. It stretches north from there toward the bend of the road. Further north on the road, where it can be seen, and extending to 566, a hostile cavalry column, apparently part of the same column, seems to be trotting south in column of twos.

As Colonel A passed the advance guard commander, the latter reported:

I smashed the leading hostile troop, but two others were in the woods where I could not get at them.

Required:

Colonel A's estimate of the situation, decision, and orders.

NOTE: The terrain is to be taken exactly as shown on the map. Corn is standing, but it is of poor quality and sparse growth. Other crops have been cut. Leaves have begun to fall but trees are not entirely bare.

Colonel A finds himself in a position facing such rapid changes that his success will depend entirely upon the extent to which he may possess that quality of "coup d'oeil", so often spoken of as necessary in a good cavalry commander. In this map problem we attempt to follow in a deliber-

ate manner the impressions made on his mind, the deductions he makes, and the decisions at which he arrives; though in reality, *in the field*, all of this would pass through his mind in a second or two.

Mission

Colonel A's mission is to move via Littlestown and New Oxford in order to determine the nature of the hostile movement reported to be taking place in that direction. The information received at Littlestown does not change his mission, but indicates an obstacle to its accomplishment. The Blue commanding general evidently wishes the country reconnoitered as far as New Oxford. To determine the nature of the hostile movement, Colonel A will need to know whether or not there are troops of any kind behind the cavalry that has been encountered. To do this, it will probably be necessary to defeat the hostile cavalry. Colonel A will never get information by defensive or timid action. He will also wish to prevent hostile reconnaissance of the Blue main body. The easiest and surest way of doing so is to defeat the bulk of the hostile cavalry. His immediate mission, then, primarily resolves itself into defeating and driving back the hostile cavalry.

The hostile force consists of a dismounted skirmish line about 200 yards long. This would indicate about 100 men, and together with horse holders, patrols, etc., would account for about two troops. (This assumes a skirmish line similar to the one used under Cavalry Drill Regulations, 1909. Should the more dense skirmish line of one man to the yard be the one employed, Colonel A can, of course, see which is in use and would then reckon twice as large a force). One troop has just been dispersed.

About 400 yards of mounted men, in column of fours, is about one squadron; and 1000 yards of mounted men, in column of twos, is four or five troops. The accuracy of the last two deductions depends on the amount of elongation that has taken place in the hostile column. With Colonel A on the ground, it would not be a case of measurement and calculation; the impression that the enemy numbered

about a regiment would be the same, but would be instantaneous.

Whether or not the hostile cavalry covers other troops is Colonel A's mission to find out. At any rate, no such troops are close enough at hand to take part in the impending action. The hostile cavalry is pushing forward with energy and determination, but its poor formation indicates that the Red commander, at least till the last few moments, has expected his advance guard to be ample to deal with the Blues in his front. The fact that the inhabitants are hostile, has undoubtedly assisted in keeping the Red commander in ignorance of the real situation.

Note: Not to be too hard on the Red commander for being caught in such formation, we may note that, had he been two minutes earlier and Colonel A two minutes later in changing from road formation, the situation would have been exactly reversed. Then the Blues, at the very least, would have lost their advance guard and Troop A, and would have had their further advance effectively blocked.

The Blue forces and their dispositions are stated in the problem. Troop A is probably firing at that portion of the enemy near the small woods. Colonel A is twelve to fifteen miles from supporting troops.

Hostile Intentions

The enemy appears to be making a determined attempt to gain possession of hill 636. He has evidently been caught in a poor formation for fighting, and is trying to change formation at a gallop, while still advancing the head of his column on hill 636 at a trot. If left to continue these movements, the enemy's dismounted men would reach hill 636 in, $400 \text{ yards} \div 160$, equals $2\frac{1}{2}$ minutes, and the head of his mounted column in, $700 \text{ yards} \div 235$, equals 3 minutes. The mounted column could accomplish this change of formation at a gallop en route.

So far, nothing has developed to show what was the original intention of the hostile cavalry, whether to seek information, cover hostile movements, or simply make a raid.

Terrain

The immediate terrain consists of a hill, occupied by the Blue cavalry, with a comparatively gentle slope toward the enemy. The ground between the 566—Lefevre road and the electric road is open, except for a small amount of corn of sparse growth, which will not greatly hinder movement, and for the small clump of woods, which is an obstacle to mounted movement in close formation, though foragers could easily pass through it.

Fences on both sides of the 566—Lefevre road and of the electric railroad would somewhat delay any mounted movement that required them to be passed, though the delay would be slight, for wire fences are serious obstacles to mounted movement, *only when they are under effective fire.*

The lane west from near 609 is unfenced, while the one west from 619 is fenced with wire—what kind could not be told at the distance from which Colonel A sees it.

The slope of the ground is nowhere too great for mounted action which is, therefore, suited to the terrain. From his horse Colonel A can see all the ground in the vicinity, except a small piece behind the clump of woods, the bottoms of a few ravines, and the foot of one steeper slope.

Courses of Action Open to Colonel A

1. Any move that Colonel A can make, which does not contemplate attacking and driving off the Red cavalry, will necessitate his giving up his mission. This is not to be considered.

2. Colonel A might dismount his whole force to fight on foot. This would be dangerous and, as it gives up the initiative, it also practically abandons his mission, and for no good reason.

3. He might use partly mounted and partly dismounted action. For the moment Troop A is dismounted. It would take some time to reach it with orders, and it may be doing effective work where it is now; hence this small fraction of the force should be the last to receive orders. As regards the balance of the regiment, to dismount Troops C and D would simply take time and place both men and led horses in the way of mounted action by other parts of the regiment.

To use these two troops mounted against the hostile skirmish line would stop it sooner, would probably be successful, and, if so, would give the greatest results. To wait for the machine guns to go into action anywhere would simply waste time. The use of the combination of dismounted with mounted action by the main body of the regiment is, therefore, to be rejected.

4. Col. A may order Major B, with Troops C and D, to charge the hostile skirmish line and have him act at once. These two troops are reforming. They can be rallied in a second or two for a charge, either in line or as foragers, while moving toward the enemy. To dismount they must get into regular formation and count fours, thus losing time while remaining in the way of the other squadrons.

The formation of the approaching second squadron is favorable for a charge to the front, and there is nothing to be gained, and a good opportunity to be lost, by an attempt at a turning or enveloping movement. In fact, a charge straight to the front is bound to result in all the envelopment that would be useful.

For such an attack combat patrols are necessary. Troop A sufficiently protects the right flank. The full view to the front and left front, taken together with the probable protection from that quarter of the left flanking group of the former advance guard, will be sufficient for the moment.

Should the action continue for any length of time, a patrol should occupy hill 637, unless the flanking group of the former advance guard can be observed to have already done so. The left flank also has some protection from the two wire fences, though it must again be urged that the protection from a rapid hostile advance afforded by wire fences is very slight, indeed, unless such fences can be brought under effective rifle fire.

In going into action with his mounted troops, Col. A will find the machine gun troop in the way if it is sent to hill 636; besides, if placed on that hill, it can neither gain a field of fire unobstructed by our own troops, nor effectively assist in covering a possible reverse.

In case of initial success, which is to be expected, an

advance of Troop A north towards 566 will be likely to reap a rich reward.

The 2d Squadron will be ample for the first attack on the hostile column, and will be most effective on a comparatively narrow front, say of two troops in the first line. This will leave the whole 3d Squadron as a reserve with which Colonel A can himself influence the action. Troop B is too far away to be recalled. Its existence might not even enter Colonel A's mind at the present time.

Decision

Colonel A decides to attack the enemy mounted and at once; to send Troops C and D against the hostile skirmish line and the 2d Squadron against the mounted column; to use the 3d Squadron according to the way the fight develops; to order the machine gun troop into action near the railroad cut, but not to wait for it; and for the present, to leave Troop A where it is. It is taken for granted that a patrol from the advance guard has been on or near hill 637.

NOTE: Part of the above estimate had already been made by Colonel A. Each event, as it came to his notice before and during the march, having left its impression. The remainder of the estimate and the decision in the field would be almost instantaneous. The object of map problems of this nature is to prepare the mind to make such instantaneous decisions, based on a quickly realized conception of the opportunity. In war, such decisions will have to be reached in a very short time. The commander's mind will act more quickly and logically under stress if peace time study has developed the channels of thought which must be brought into play.

Orders

To Major B, advance guard commander:

Charge in two lines against that (pointing) skirmish line. Move at once.

To Major C, commanding 2d Squadron, which should arrive on the hill by the time Major B has started his charge:

Charge in two lines. That mounted column (pointing) your objective. 3d Squadron will be in reserve.

To his Adjutant:

Have the machine gun troop go into action from near that railroad cut (just west of hill 636).

Further orders will depend on the result of the movements already ordered. The 3d Squadron has not been halted; being available for use as a reserve against any unbroken portions of the enemy, the led horses of the dismounted line, or any formed bodies of the enemy that may come forward from the road; or it may be sent in pursuit. On the first signs of success, Troop A will be mounted and sent in pursuit up the road. As soon as time permits Troop B and the Blue division commander will be notified of the action and its results.

Part VIII—A Field Battery

Situation:

On October 11, 1911, a Blue force, consisting of 3d Infantry, Troop A, 3d Cavalry, Battery D, 1st Field Artillery, under command of Colonel A, is marching on Hunterstown via the Littlestown—Pleasant Hill Schoolhouse—Boneauville road. The country is hostile to the Blues.

Battery D is marching near the head of the main body. The reconnaissance officer with one scout, and one signaler are with the reserve of the advance guard.

At 9:00 a. m., when the head of the main body has reached the small creek four hundred yards northwest of Pleasant Hill S. H., the cavalry advance party is stopped by rifle fire from the village of Whitehall.

Upon hearing the firing, Captain D, commanding battery, taking with him his executive officer, and two musicians and the chief of 5th section who has with him the B. C. telescope, rides to the front with Colonel A, who informs him that it is urgent that the march be continued and that an attack may be necessary.

At 9:30 a. m., at the farmhouse three hundred yards southeast of Alloway Creek, Captain D receives the following order from Colonel A:

About a regiment of infantry with a battery of artillery is taking up a position on both sides of this road near 637. A part of our advance guard is in the village of Whitehall. We will attack the enemy at once, enveloping his left flank. Place your battery in position on this side of Alloway creek and support the attack. Develop the enemy's artillery as soon as possible.

Captain D also hears Colonel A's orders for the disposition of the other troops in the attack.

The artillery reconnaissance officer rejoined his Captain and reported that he had been unable to locate the position of the hostile artillery but that one of his scouts, at 9:15 a. m., had seen artillery near the farmhouse southeast of Sweet Home Schoolhouse and that it was moving towards St. Luke's Church.

The battery is halted at 598, while the head of the main body has arrived at Captain D's position.

Required:

1. Captain D's estimate of the situation in so far as it relates to the disposition of his battery.
2. Orders and messages issued by Captain D in getting his battery into position.
3. A tracing showing positions occupied by firing battery, combat train, limbers, and B. C. station after battery is in action and the route followed by firing battery, and combat trains.

Note: State in solution disposition and use of agent, scouts, and signal men while battery is in action.

AN APPROVED SOLUTION**Requirement:****Mission**

1. Captain D's mission is to divert the attention of the hostile artillery, as soon as possible, from the Blue infantry; and then to assist this infantry in its attack on the enemy's position, as soon as it comes within range of the enemy's rifle fire.

Estimate

2. The enemy's strength and position is better known than would, many times, be the case. Captain D has been informed that our advance guard has observed about one regiment of hostile infantry, deploying on both sides of the road near 637; he knows, also, that the enemy has one battery of artillery, which was seen approaching St. Luke's Church from the northwest, at 9:15 a. m. It is not probable that this Red battery advanced beyond St. Luke's Church, as it would surely have been discovered had it done so. Neither is it likely it went back the way it came. The chances are, that it is in readiness back of the ridge on which St. Luke's Church stands; but whether north or south of the road, and how far from the road, can not now be told. That it is not yet in position, may be inferred from the fact that the Blue infantry on the road,

where it is certainly visible from St. Luke's Church, has not drawn its fire.

It is almost certain that observers will be posted in the steeple of St. Luke's Church, or in the trees near that point. It will soon be hazardous for Blue troops to appear in vulnerable formation in possible sight of these enemy observers.

3. Captain D also has full information as to Colonel A's intentions; that the latter proposes to attack the enemy by enveloping his left. Over what ground will this attack pass? In all likelihood, the frontal attack will be made along or near the Whitehall—St. Luke's Church road, on either or both sides; while the enveloping attack will move over the ground in the vicinity of the stream lines northeast of Shebley's.

4. Captain D clearly sees that his mission requires him to select a position for his battery which will admit of the following conditions being fulfilled:

(a) Bring an effective fire on the neighborhood of St. Luke's Church and of road junction 637.

(b) Have an observation station in connection with this position, from which can be seen the vicinity of St. Luke's Church and of 637, and the ground over which the Blue attack will pass.

(c) Be out of view of the enemy observers in steeple of St. Luke's Church, or trees or buildings near enemy's position.

(d) Be capable of being quickly occupied, and, as far as possible, in such manner that the enemy may nowhere see the battery.

(e) And the position must, in accordance with Colonel A's orders be southeast of Alloway Creek.

5. In the half-hour which Captain A has had since leaving his battery, not more than 10 minutes were needed to ride forward to his present position. He has had 20 minutes to spare which he has employed in reconnoitering neighboring positions, and receiving the report of his reconnaissance officer as to positions the latter had visited. With the knowledge obtained from these reconnaissances,

and from his map, Captain D, upon Colonel A's orders, can at once decide as to the disposition of his battery.

6. The following possible positions are considered by Captain D:

(a) Hill 627. The north end of this hill is bare, and affords a position for either direct or indirect fire, good place for observation station in trees on south end of hill. Can be approached under cover. Range to 637 about 3850 yards, and 350 yards more to St. Luke's Church; rather long to obtain good results from shrapnel fire. A good place if the Blues were to fight a defensive action, but too distant for supporting an attack if a closer position can be found.

(b) Hill 647. Bare spot about center of this hill, with trees or buildings on both sides, limiting field of fire. Top of hill quite flat; guns can not be run up readily for direct fire. Ranges to targets too great. Similar to (a).

(c) Saddle between hill 627 and Schild's hill. This position is so shallow—only 5' lower than the crest in front—that even after making allowance for crops on ground concealing the battery itself, the gun flashes would at once be located by hostile observers.

(d) Near 610. This position can be quickly reached by going across country west of hill 627, the crops being probably high enough to conceal the movements of the battery. But a better route would be by the ravine east of hill 627, northwestwardly, past the group of houses northeast of Schild's; thence, southwest along edge of woods. Another method of approach would be to pass Grawmer's on the road at a rapid gait, turning northeast up the ravine 300 yards northwest of that point. At the head of the ravine the walk should be taken, all men dismounted and horses led in order to reduce the chance of being seen.

There is a good position for an observation station on Schild's house or the ridge in front of it, or, better, in one of the trees just northeast of Schild's. The woods here are heavy; and, at a distance, all trees in a wood look alike. It might be necessary to cut out a few branches to give the observer an unobstructed view, while still leaving him concealed, but this can be easily done.

Range to 637 is about 3050 yards, a good artillery range. But the position of a battery near 610, while not visible to an observer on the ground near 637, or St. Luke's Church, would probably be visible to an observer in the church steeple, or in some of the trees near there. It would certainly be betrayed by the flashes of the guns.

(e) Ravine northwest of Grawmer's. This position would be a concealed one, which could be approached most of the way under cover; but on account of the ridge lines, and houses in front and rear of this position, on which the enemy could accurately observe his fire, and the fact that the gun flashes would be visible, and at once attract the enemy's attention, the position is poor one.

Positions c, d and e, have the worst feature an artillery position can have,—lack of depth. Once located by hostile artillery, a battery in such a position can be kept immobile as long as the hostile artillery chooses to maintain its fire. Even a direct fire position should have depth, enabling the guns to be withdrawn by hand to where the limbers may come to them. Generally speaking, a narrow ravine is a poor place for artillery.

(f) In ravine of Alloway Creek. Not enough cover to permit position being reached, without long and delaying detours.

(g) South of Pleasant Hill S. H.—Whitehall road. Same objection as (f), with added one that no good observation stations exist, especially, with reference to observing the progress of the enveloping attack.

(h) Field 600-800 yards northeast of Schild's. This position can be reached under cover, via east side of hill 627 and houses on road northeast of Schild's. The woods in front make a perfect screen and afford some protection. Observation station could be located in a tree on west side of these woods, and would give excellent view of all the terrain of the expected action.

Guns at the fence running north from the group of houses 600 yards northeast of Schild's will clear the trees when laid for a range of 2,000 yards; about that required for the line, E. Ecker's—Whitehall—roadfork 595, as short a range as is likely to be needed.

7. If position 6 (h), is selected, limbers and combat train can be located on either flank of the battery, under cover from the enemy's observation, behind the trees sheltering the battery from view, or behind the trees south of the road 610—633, west of north from hill 627. The latter position is best protected from possible hostile cavalry patrols.

8. Captain D considers the advisability of establishing an auxiliary observation station. Possible places are:

(a) House about 300 yards northwest of road junction 606; or in trees 300 yards west of this house, and north of Small's.

(b) E. Ecker's.

(c) House on hill 607, northeast of Whitehall S. H.

(d) Whitehall.

(e) House 1,000 yards southwest of Whitehall.

Of these positions (a) appears the most promising, as giving a near view of the enveloping attack. It might, later, as events develop, be pushed forward. If the reconnaissance officer be sent to this place, he could, if communication can be maintained, report as to the effect of the Blue artillery fire, the advance of the Blue infantry, counter attacks of the enemy or other hostile movements, etc. The reconnaissance officer and one signaller are present. A musician, as horse-holder, can also be given him. The signaller, by utilizing wire fences and connecting them up across roads and open spaces with his buzzer wire, can establish a telephone line with not too much delay. He might even find, for at least part of the way, existing farm telephone lines which he could use. Failing this, flag communication could be established with a party stationed at the Schild house.

9. Captain D sees no necessity to ride back and personally bring up his battery. His executive officer, whom he brought up with him for this purpose, and who has accompanied him for the last half hour, becoming thoroughly oriented in this time as to the situation and his captain's views, can be given suitable instructions, and sent back to lead the battery into its position.

10. It is not necessary for Captain D to indicate the

exact spot which the battery is to occupy. While this is frequently necessary when many troops are to be in the same neighborhood, there is no need to take up valuable time, when one battery, which has ample ground in which to maneuver, is the only one concerned. Captain D can best employ his time, while his battery is moving into position, by establishing his station and by careful, continuous observation of the terrain, endeavoring to locate as many hostile targets as possible.

11. The plan of the Blue attack, and the position of the leading troops in Whitehall, indicate that the battery will soon be a mile behind the attacking infantry; and if a support is not provided by Colonel A, Captain D will be justified in asking for one. A company would be ample, and would not draw too heavily on the attacking force, since part of it could be sent forward in case of need. The commanding officer of the company would, after consultation with the battery commander, be responsible for the posting of the support.

A possible arrangement would be, one platoon at the house 450 yards north of roadfork 599, patrolling to north and east; half a platoon at Grawmer's, and the other half at 633, patrolling and observing to south and east; the remainder of the support in reserve at the house south of the battery.

12. Some means of communication with Colonel A is necessary: but Captain D has reliable non-commissioned officers, one of whom can be detailed on this duty.

Decision of Captain D

13. To post his battery 400 yards east of the woods north of 610; the battery observation station to be on west edge of same woods (near south end); reconnaissance officer to establish an auxiliary station at house northeast of Small's; limbers and combat trains to be south of the 610—633 road, behind trees southeast of 610; an agent to be provided for Colonel A; and, finally, the latter requested to furnish an infantry company as battery support.

Requirement 2:

14. Captain D issues the following messages and orders.

15. At 9:31 a. m., verbally, to Colonel A:

Request a company be detailed as battery support, as the battery will soon be a considerable distance in rear of the infantry.

If Colonel A assents to this, he will undoubtedly detail a company of the main body, which is close by, and the captain of this company will soon be up.

16. At 9:32 a. m., verbally, to Lieut. R (reconnaissance officer), Lieut. E (executive officer), Corporal X (scout), and Sergeant S (chief of 5th Section):

You have heard Colonel A's orders and are familiar with the situation.

Lieut. E, ride back to battery and bring it up quickly under cover, east of hill 627, into position in the field north of the 610—633 road, about 150 yards north of the road, and 400 yards east of the woods just north of 610. Limbers and combat train south of the 610—633 road, and east of trees southeast of 610*.

I go at once to establish my station on west edge of these woods, northeast of Schild's.

Corporal X, report as agent to Colonel A.

17. Lieutenant E gallops back to the battery, while Captain D waits a minute or two to consult with the commander of the infantry support. The latter refers to his map and, after having been advised of Captain D's intentions, suggests an arrangement similar to that outlined above in par. 11: To this, Captain D readily gives his approval.

18. Captain D, accompanied by Lieutenant R, Sergeant S, two musicians and one signaller, keeping under cover of Schild's hill, now gallops off towards 610. Arriving there, Captain D selects, in the edge of the woods north of 610, a tree of good height, not too difficult to climb, or needing much trimming; and at 9:40 a. m., verbally, states:

The battery observation station will be in this tree.

Lieutenant R, take the signaller and one musician, and establish an auxiliary observation station at the house 400 yards northeast of Small's, about 1,500 yards from here. Use wire fences to establish and maintain telephone communication with me if possible. Otherwise arrange for a flag station at Schild's.

19. Captain D now climbs the tree and with the help

*Captain D illustrates his remarks by pointing out orientation features on the ground and on his map.

of Sergeant S establishes his observation telescope,* breaking off branches where necessary. The one musician left, holds the horses and watches Lieutenant R who rides off carefully, his signaller wiring up as necessary; the musician with Lieutenant R holding the signaller's horse as required.

20. Captain D need give no further orders until ready to open fire. The battery, when it comes into its designated position, will send forward and lay a telephone line to the B. C. station; the signal corporal will attend to all the details of establishing the station; and the executive officer will report, after communication is established, when the battery is ready to fire. The Executive Officer would give an initial laying by compass, site and range being estimated or taken from the map. The captain corrects by observation of the first fire. In the meantime, Captain D can give his undivided attention to observing the enemy's position and the location of the Blue infantry.

21. The executive officer will retain, at the battery's position, one of the signal men; the remaining signal man and one remaining scout he sends to the B. C. station. They lay the telephone line as they go. This line is connected to the end of the line laid by Lieut. R. Meantime, the progress of the latter is watched by the musician from the east side of the Schild house so that flag communication may be established at any moment.

*If not equipped with the model 1913 instrument, he would use his field glasses. Sergeant S assists in observation. Whenever the captain is conducting fire, Sergeant S maintains the general observation of the field.

Part IX—A Field Battery

A Blue brigade, reinforced by a battery and a troop, is marching from Emmitsburg on Taneytown. The advance guard consists of the 1st Infantry and Troop A, 2d Cavalry, under command of Colonel B.

The country is hostile to the Blues.

The advance guard crossed the Monocacy at Bridgeport about 9:00 a. m., and upon arrival at the heights east of the river became engaged with the enemy.

General A with the main body, west of the river, upon hearing musketry fire, rode forward to join the advance guard, taking Captain D, battery commander, with him.

As they rode past Alexander's, artillery fire was heard to the northeast, and General A directed Captain D:

Send orders for your battery to join the advance guard, and you report at once to Colonel B.

NOTE: Captain D has with him an agent and two musicians; the reconnaissance officer and two scouts are with the advance guard.

Colonel B was found at the house 150 yards east of 500. Captain D reported that his battery was coming up, and Colonel B gave him orders as follows:

I have a battalion of infantry deployed along the farther edge of the woods on that hill (532), and another battalion in the woods west of Eckhardt's ; but they cannot advance, on account of the fire of a battery of artillery at Longville. The battery is right out in the open. You can see the upper part of the flashes from this house. About a battalion of hostile infantry is on hill 526, and our cavalry from north of Taneytown, has just reported that more infantry is approaching Longville from the east.

Get your battery into position quickly and stop that artillery fire. As soon as you open fire I am going to drive the enemy off hill 526. You must stop any infantry reinforcements from advancing to his support.

Captain D notes that the 3d Battalion, 1st Infantry, is halted about 500 yards northwest of 500 road junction. He estimates that the Blue battery will be now between Monocacy bridge and the small stream-crossing to the east.

Lieut. C, reconnaissance officer, reports that he has

seen the hostile battery, and that it is in the cornfield south-east of 541.

Required:

1. Any orders issued, or messages sent by Captain D upon receiving General A's instructions at Alexander's.
2. Captain D's estimate of the situation in so far as it affects the disposition of his artillery.
3. A tracing showing positions selected for firing battery, combat train, limbers, B. C. station, auxiliary observing stations (if used), and the routes followed by firing battery and combat train.
4. State disposition and use of reconnaissance officer, scouts and telephone apparatus while battery is in action.

AN APPROVED SOLUTION**Requirement 1:**

Upon receiving General A's orders, at Alexander's, Captain D directs a musician:

Ride back to Lieutenant C; tell him to form for action and bring battery up this road at a trot, halting at the roadfork (500).

He indicates to the musician the Alexander—500 road.

Requirement 2:

Two tasks are assigned to the battery commander: First, to stop the hostile artillery fire; second, to prevent any Red reinforcements from approaching hill 526.

Captain D considers the first task to be the more important one, for it is the fire from the Red battery that has stopped the progress of the Blue advance guard. In selecting a position for his battery he will, therefore, make sure of being able to deliver an effective fire on the hostile battery. It must be a position that can be occupied quickly, for Colonel B's orders indicate that the whole movement forward will be delayed until the Blue battery opens fire.

The hostile battery being already in position and engaged in fire, the Blue battery should seek an approach along a covered route to a position affording defilade and then open fire as a surprise to the enemy.

With the Red battery definitely located in the open and the Blue battery concealed, but with good observation stations, Captain D should have no difficulty in neutralizing the hostile artillery fire to such an extent that Colonel B can resume the advance of the infantry.

Captain D, while riding forward, has been able to estimate, pretty well, the country on both sides of the road for about 500 yards, with respect to its use by artillery. He notes that this area is screened against Longville and vicinity by the woods to the northeast, where the Blue infantry is engaged, but that there are no high places along the road suitable for observation stations.

Arriving at hill 524, and looking over the country from the farmhouse, he sees that the country to the north and northeast, between the road and the woods, is all defiladed against the enemy's position near Longville, and that there are several positions near the house suitable for the firing battery.

From the farmhouse, he sees the tops of the flashes of the hostile battery; he will thus be able to adjust approximately the fire of his own battery on the target. With the aid of an observing officer at the front of the woods to the north, he should be able to deliver a quick and effective fire on the Red battery.

He might go forward himself and establish his B. C. station there, but it would be a considerable distance from his battery, with the further disadvantage of being right in the midst of the Blue infantry firing line, which is now under hostile artillery and infantry fire.

Captain D can see from the house more distant parts of the terrain that may offer suitable places for the battery. About 1000 yards north of 500 road junction, and two or three hundred yards west of the bend in the road, there seems to be a position behind the crest that will also permit a fire across the north front of the woods, on the the hostile infantry. There is also an open area in the woods to the north which may be practicable for the battery.

Captain D knows, though, that his battery will be up in five or six minutes and that the reconnaissance of these distant positions will take considerable time. He believes

that the time element is important, and that he should have a position selected for battery to occupy as soon as it comes up.

He decides, therefore, to place the battery in position near the farmhouse where he now is, and to use the house as the B. C. station. Looking over the terrain near the house, he sees the ravine to the west of hill 524, and also the one to the southeast of hill 524; but neither of these offers any advantage over the flat country to the north of the road. So he selects a position on the cultivated ground north of the farmhouse with the right piece near the barn.

The range to hostile battery will be about 3,000 yards, and the battery from here will be able to fire also on hill 526 and the country to the northeast.

The limbers will be placed behind woods on south slope of hill 524, and the combat train near farmhouse about 500 yards southwest of the limbers; an auxiliary observing station will be at Eckhardt's farmhouse.

Requirement 3:

See map on bulletin board.

Requirement 4:

The reconnaissance officer is in charge of the auxiliary station at the Eckhardt house; an agent is with Colonel B for the purpose of transmitting messages and information to Captain D. One scout is with the reconnaissance officer; the other regular scout and one specially detailed are at Boyd's providing for security of battery. One telephone is at the B. C. station, one at the firing battery and one at the auxiliary observing station.

Comments on Solutions

In several solutions, under Requirement 1, the orders issued were not given in proper form; that is, as they would be actually expressed by Captain D.

The orders for the occupation of the position and a description of the manner of occupying position were not called for under Requirement 2. This was given in several solutions.

In seventeen solutions the firing battery was placed in vicinity of hill 524.

In seven solutions the firing battery was placed on the slope west of the bend in road about 1,000 yards north of 500 road junction. This is a good position for carrying out the tasks assigned to the battery. Flash defilade can be obtained against Longville, as well as an uninterrupted fire across the front of Colonel B's infantry toward hill 526. The B. C. station in this case should be at the northern point of the woods west of Eckhardt's.

Under the conditions stated in problem, the objection to this position would be the length of time required to reconnoiter and occupy it. If the reconnaissance officer recommends this position to his battery commander and is ready to lead battery to it, it satisfactorily solves the problem.

Four solutions placed the firing battery near head of ravine 500 yards north of 500 road junction. There is no good observing station close to the battery in this position. The battery being on lower ground than the woods in front, an unnecessarily large dead space is formed in front of woods.

Four solutions placed the firing battery in north edge of woods near Eckhardt's, or on top of the crest near the house. This position is untenable, considering conditions stated in problem. In some of these solutions, battery was moved to position through the woods, while the map indicates that the woods have thick underbrush.

Three solutions placed the firing battery in open space in woods southeast of Eckhardt's. It is doubtful if more than "mounted defilade" can be obtained here, and that only by moving back to the edge of the woods. In this case the position of the battery and its range would be found easily, on account of the flashes appearing against the woods in rear.

One solution had the firing battery in the middle of the woods, and another one, in rear edge of woods.

One solution had the firing battery in ravine near Alexander's, with B. C. station on hill 503. In this case the range is too long and the battery commander cannot see his objective.

Part X—Artillery

General Situation:

A Red army is holding the line Taneytown—German-town against an equal Blue force attacking from the east.

Special Situation:

The 1st Cavalry (Blue), is covering the front Marysville—Whitehall, with headquarters at Gebhardt's.

A Blue detachment detrained at Sells Station, is marching on Whitehall via Bashor Mill, with orders to cover the Blue right flank.

Troops in Order of March

Advance Guard, Colonel A commanding; the 1st Infantry and Battery C, 1st Field Artillery (less combat train).

The advance guard support consists of the 1st Battalion and one platoon of machine guns of the 1st Infantry, under Major B.

Main body, the 2d Infantry; 1st Battalion, 1st Field Artillery (less Btry. C); the 3d Infantry.

General A, Major B, and Major C, and Captain D (Bn. Adjt.) of the artillery, are riding together at the head of the support, and a rest halt is ordered as they arrive at 633 crossroad. Messages from the cavalry and from the main army cause General A to issue the following order:

Heavy hostile columns are approaching Whitehall and Square Corners from the west and northwest.

We will take position in readiness here. Order of march ceases.

The artillery will go into position at once to cover the front Square Corners—St. Luke's Church, and will open fire without further orders on any hostile body that appears.

Major B, with the support establish a march outpost with your headquarters at that group of houses about half a mile west of us. Patrol well out and get in touch with our cavalry without delay. Their headquarters is at Gebhardt's, that farmhouse yonder, (pointing).

The rest of the 1st Infantry will close in mass behind that woods (about 400 yards east of 633).

The 2d and 3d Infantry will close up on the 1st.

Trains will wait orders at Sells Station.

Required:

1. Tracing showing the detachment on the march. The line Sells Station—633 to be the center line of the sheet. Usual road map features to be shown.

2. Actions and orders of Major C, 1st F. A. Messages, directions, in fact, every word uttered by Major C to be reported verbatim.

3. Tracing to include the line Square Corners—St. Luke's Church and the position of the 3d Infantry.

Show roads, blue stream lines and 20-foot contours of 600 and above.

Indicate infantry and cavalry positions roughly, artillery positions accurately and fully.

AN APPROVED SOLUTION**1st Requirement:**

The head of the support is at 633 which is therefore the point to work from. Assume one company in the advance party, with its point at the group of houses one-half mile to the west, its main body on the 620 nose. The support extends back to 612.

Assuming 600 yards distance to the reserve, the head of the latter is at 613, its tail about 200 yards west of 566. The battery is in rear of the infantry.

Assuming the distance to the main body to be 800 yards, its head is at Bashor Mill. The 2d Infantry occupies 1,000 yards of road space, the artillery the same, the 3d Infantry has about two battalions in column of march, the remainder in column of companies, in mass, near the detraining point.

The field trains are parked in the grass field south of the station.

2d Requirement:**Remark**

Every problem in tactics contains some main idea, the recognition of which is essential to a successful solution. If the main idea is recognized, a satisfactory solution has been entered upon. Means of carrying the solution to completion will differ, for all the factors in a tactical problem

are variables and no two minds will assign them equal values, but a majority of such solutions will differ only in unessential details. Rarely will a man who has recognized the main idea go wide in his judgment as to how it should be treated. Where the main idea is not recognized, solutions are mere gropings in the dark, occasionally successful, but by the law of chances, more often not.

The pre-essential to a good solution is, then, the determination of the main idea, the important feature of the situation.

The problem is a simple one. A General, undecided as to his next move, orders his artillery to take a position from which it can attack by fire an enemy that is expected to appear on a certain line at any time, and meantime has his other troops close up on his head of column to be handy when he decides how he can best use them. How soon the enemy may appear is not known.

What is the "main idea" for the artilleryman? Simply that he should, with no unnecessary delay, prepare to fire on the ground where the enemy may appear, from a position hidden from hostile observation, and reasonably close to the supporting infantry.

Discussion of the Problem

So far as the artillery is concerned, General A's order is one that calls for quick action. Heavy hostile columns are approaching from the west and northwest. The skyline, beyond which they are, is about two and one-half miles distant—not a bad artillery range when conditions of observation and the character of the probable targets are considered. An enemy appearing on that crest would have but a few hundreds of yards to traverse to gain shelter in the valleys to the east. How near he may be to this skyline is unknown; but, in any case, that is where he must be forced to halt, deploy, or change his direction of march.

The battalion commander has with him, as a rule, his musician, orderly, and the agents. The sergeant major, the scouts, the two signal men and the two reel cart drivers are the command of the adjutant. With him are usually the sergeant major and the scouts, the signal men being

with the reel cart, of which the signal corporal is in charge. In this case, the statement of the problem indicates that the reel cart is in its usual place at the head of the battalion.

The battalion quartermaster, the quartermaster sergeant and one orderly are with the field train.

Major C knows that his nearest battery, C, is nearly a mile back, and the remainder of the battalion at least two miles back. The former can be brought up in 10 to 15 minutes, the latter in from 30 to 35 minutes. This assumes that an agent is sent at a gallop and that the command comes up at a trot.

It will require half a minute to instruct the agent and possibly a full minute. To ride to Battery C and deliver the message will require about four minutes. The question naturally arises, "Why not use the flag?" The procedure in that case would be as follows: Since the battery is probably hidden, more or less, by the woods at 612, the scout charged with sending the message must go to one side and find a place from which he can see it. He must avoid signalling from a skyline, and must select a background such that he will be readily picked up by the battery and his signals read. At the distance, this is apt to be difficult. The nearest likely place is about 100 yards to the south. Arrived there the scout "calls" with his flags until answered from the battery, and then sends his message at the rate of about ten words a minute. At the best, this method would save very little time, and it might lose a great deal of time.

Major C decides, therefore, to send a messenger; one will suffice, since the batteries are all on the same road.

Corporal C, (agent) tell Captain C to report to me here, as soon as possible, with his reconnaissance party; his battery to follow him at a trot. Then go on to the battalion and tell Captain B to report to me, as soon as possible, with Captain A and the reconnaissance parties of both batteries. The battalion is to follow him at a trot. The combat trains are to halt together in the woods north of the road and about a mile east of here. Stop there on your way back until you see them established, then rejoin me at a trot. Gallop.

Major A has a very good view of the country in which the enemy is expected to appear, but even a 14-foot greater elevation is not to be despised. Besides, hostile artillery is

quite likely to sweep this, the most prominent road crossing the ridge. The enemy territory should be taken under observation at once. Until the reel cart arrives field glasses alone will be available; all the scouts have them, and no better employment could be found for the adjutant and his party. This form of reconnaissance *must* begin when a sector of observation is assigned to any artillery unit, and be maintained as long as the assignment continues.

Captain D, leave three scouts with me; take the rest of the headquarters party to yonder hill (647), and take the sector Square Corners—St. Luke's Church under observation. When the reel cart comes up, run a line to the batteries and also establish flag communication. The batteries will go in north of here.

Having made these initial dispositions, Major C looks about for positions for the batteries. There is plenty of suitable ground to the south and north and on the ridge on which he stands. Other things being equal, he would prefer to go to the north, as the ranges will be shorter.

The ridge on which he stands is the most prominent one for miles in any direction, and is undoubtedly under hostile observation throughout its length. It is within reasonable range of possible heavy artillery in the main Red position. A movement across this ridge will certainly be seen and valuable information thus given to the enemy, viz., that Blue artillery is approaching the Red flank. The batteries could go under cover around the flanks of the ridge, but this would require much time.

In the distance, west and northwest, are many likely looking places where positions for batteries might be found, but much time is certain to be lost in getting to them; they are far from the supporting infantry; General A's final dispositions may be such that a retrograde movement would be necessary; or a serious engagement, with the rescue of the guns for its object, might be brought about. The presence of the cavalry is no inducement to go forward,—it is not a part of General A's command, and the instructions under which it is operating are unknown.

Major C dismisses all thought of the distant positions, and looks for that one to the north which can be most quickly occupied. He can see over the field to the north, and

might very well designate a position in it for Battery C; but there is time to see personally that no impassable object exists in it. If there is, or if the proposed position is otherwise unsuitable, he will be able to make any other dispositions *at once*, which he would not be if he sent a scout to see.

With Corporals A and B (agents), Corporal X, Privates Y and Z (scouts), his orderly and musician, Major C rides into the field to the north, and trots to its northeast corner looking over the ground.

C Battery will go in here. Limbers near that woods to the east (pointing). Private Y, post yourself 100 yards from this corner in line with it and the crossroads. (633). You will mark the left of the battery. When relieved join me.

Corporal X, you and Y open the fence yonder (612). Conduct C Battery to its position, and join me at the crossroads (633).

Returning to the crossroads 633, the major meets Captain C, and has him halt his party while on the east slope of the ridge. Then to him and his reconnaissance officer he gives a full statement of the situation, of the information and orders received from General A, points out the position the battery is to occupy and tells him to establish his own station "in this vicinity." He does not attempt to give firing data for Captain C,—the latter can get it for himself by the time the battery is ready for it,—but he might very well designate an aiming point, since while on the ground he could have selected one. It may not be possible at 633 to select an aiming point that will be visible and unmistakable at all the guns.

It is not necessary to order defilade; the major has already determined that in selecting the position.

Captain, heavy hostile columns are approaching the line Square Corners—St. Luke's Church (pointing them out) from the west and northwest. Our cavalry covers the front Marysville—Whitehall, with headquarters at that farmhouse (Gebhardt's) (pointing out the places or their directions). A position in readiness is ordered here, the infantry closing up on that woods (612), the support of the advance guard establishing a march outpost with headquarters at that group of houses (pointing). The artillery takes a position in observation along this crest. My station is being established on that hill (points to 647). Your station will be in this vicinity, your battery in that field. That scout (pointing) marks the left of your line.

Take the sector Square Corners—St. Luke's Church under observation at once and in the absence of further instructions, open fire on any hostile parties of any size that you may discover.

Let the adjutant know your dispositions as soon as they are complete, and have another agent report to me.

Post your limbers about 500 yards east of the battery.

I am going north to locate the positions for the other batteries.

Captain C directs his reconnaissance officer to arrange the communications, designates an aiming point and gives firing data. The executive (the senior officer at the battery) has the guns laid accordingly, and reports the battery ready. The captain studies the terrain from some convenient position,—in this case the roof of a building since the trees north of Schild's interfere with his view from the ground.

The chief of the fifth section comes up, and he and the R. O. assist in observing or computing data, or both; or prepare a covered place of observation to be occupied in case of need, as the captain may direct. Signaller No. 1 and a substitute operate the telephone line from the B. C. station to the battery; signaller No. 2 connects with the battalion line at the B. C. station. For flag connection three men are required, who may be scouts, and a substitute, or three substitutes. The signal corporal supervises the work of all.

One scout with flags ready, keeps near the battery commander, in view of the battery and out of view of the enemy, ready to communicate his orders.

When the battery approaches, the scout stands facing down the line it is to occupy, right arm extended in that direction, left arm pointing in the direction of fire. By this means, the executive officer is able to place the battery in position without delay, without even riding to the crest himself, and the guns will be pointed in the correct general direction.

When the battery is met by the scouts in the road near 612, the corporal sends the private to rejoin the major, as he is only needed to help open the fence. The corporal then points out to the executive officer the position the battery is to occupy. The latter, without halting, leads the battery through the gap in the fence, straight towards the scout who marks the position; the corporal meantime telling him the details of the position, so far as he knows them. The ground being suitable, the executive officer signals:

Form for action, double section, left oblique, march.

The leading carriage takes the walk; the others continue at the trot, the caissons obliquing out of column to the left until clear of the guns by two yards, and then continuing parallel to them; except the first, which closes up in double section column with its piece and takes the walk. The others form double section in succession in the same manner. The rear caisson of the fifth section passes by the whole battery on its right, places itself ahead of the leading section, and takes the walk. Having reached the position of the scout, the column changes direction half right and marches on the fence corner. As the head of the column reaches it, or the rear carriage reaches the position of the scout, the executive officer signals: Action left. The battery halts, the cannonneers dismount, unlimber the guns and caissons, and put them in the order in battery. The limbers move out by the right flank, and are conducted by the first sergeant to the position designated by the executive officer or by the battery commander; in this case, to the small woods about 500 yards to the east. The executive officer meantime orders: Prepare for action, which is executed.

The battery was at a trot until double section was formed; hence, no earlier opportunity was presented of preparing for action, nor, until the gap in the fence was cleared, of forming for action.

The signal men prepare their telephones, one to connect with the battalion line if laid, the others to connect the executive officer with the battery commander if necessary, and take their flags from the cases in readiness for use.

Having assured himself that all is in readiness, the executive officer reports to the captain: Battery in order, sir.

The captain designates an aiming point, gives the firing data for some point, as Shebley's, adding: Do not load. Instruments are set and guns laid.

Major C rides north under cover of the crest, his men cutting the fences, until he reaches the one running east from the farmyard 600 yards north of 633, then goes up to the crest and looks about him.

He might as well have taken the road, perhaps, for he is far in rear of the covering cavalry, and his small party

would attract little attention. On the other hand, some hostile observer might spot the artillerymen (rifles and sabers missing, semaphore kit cases slung on their backs). Again, such an example on the part of the major would be certain to be followed by others, and signs of activity on the ridge are certain to draw unwelcome hostile attention.

At the wire fence, the major finds ample room for a battery on each side of it, space for their limbers in the open country to the east, and for the two battery commanders' stations on the crest to the left front. It would be better if the latter were more separated, but the chances of confusion can be minimized by a little judgment.

From the crest he can see Square Corners and St. Luke's Church, part of the road connecting them, and part of the slopes west and east of that road. He decides on this position:

Y, go 200 yards east along the fence and remain there to mark the place; B Battery will take a position in observation north of you; A Battery south of you, lines parallel to C Battery. B. C. stations to the left front on the crest. Limbers just beyond that fence about 500 yards east of here. Agents, ride across to that corner (pointing to 613), meet the batteries there and conduct them here. Tell the executive officers what is wanted. Then rejoin me. I am going back to the crossroads to meet the battery commanders. Move fast.

By this time the main body of the artillery should be on its way. The batteries might continue to 612 and there turn north to position; but if, by any chance, Battery C should have drawn fire, this passage in rear of it will be highly dangerous. The fence corner at 613 is visible, and if the batteries can be diverted at that point they can be brought straight across. The distance is less, but this is balanced by the ground being cultivated; so that time will be about the same, but safety will be assured.

The B. C.'s should be up—or soon will be—by the time Major C arrives at 633. He repeats the information as in the case of Captain C, and adds:

Your positions are about 700 yards from here. That scout (pointing to Private Y) is between them. Agents are meeting the batteries at the corner half a mile east of here, and have instructions to conduct them to their positions. They are also informed as to the position of the limbers. Your own positions will be on the crest to the left front of A Battery.

Wire and flag communication will be established as soon as possible. B Battery's sector is Square Corner, and 200 mils to right and left of it; A Battery's sector is St. Luke's Church, and 200 mils to the right and left of it.

C Battery is at present covering the whole sector with orders to fire on any hostile parties. You will report any such that you may see, and will prepare to fire, but will not do so without orders from me. Go to your stations under cover of this crest; look to security of your right flank, and report when you are ready.

Major C now goes to his station and receives the report of the adjutant as to its establishment, and what has been done.

Captain, take four scouts and go to the cavalry headquarters. Arrange for signal communication with me and send me any useful information the cavalry may have. Remain there in observation and have routes reconnoitered for a possible movement over there.

Corporal D, (additional agent who joined from C Battery), report to the brigade adjutant as agent.

The sergeant major, under direction of the adjutant, runs a line from Battery B's B. C. station, keeping the reel cart out of sight behind the crest. Men from the batteries carry the line forward where necessary, to the places designated by their battery commanders for telephone men.

When communication with the batteries is established and the latter are in position, Major C gives the following message:

All batteries: C Battery will now observe the sector Whitehall to 500 mils south. If the wire is busy be careful not to break in with reports, but use the flag. Do not fire without my order. The adjutant is at cavalry headquarters in observation.

Direction point is St. Luke's Church.

The position as chosen fulfills the following conditions: It meets the tactical requirements of the situation, in that it can be occupied quickly without attracting hostile attention; and from it, the hostile columns can be forced to halt, deploy or change direction at the maximum distance of which the terrain will admit.

It is good for a defense organized on this line, or in front of it, or for an attack to the front or toward the main hostile army's left flank.

Ranges are reasonable, observation fair.

Absolute protection for limbers and combat trains can be assured by simply sending them well to the rear.

Ammunition supply is easy.

Well concealed routes to the front, rear and flanks are available.

The trees east of the line Schild—Grawmer screen it somewhat from the hostile main position, where heavy artillery may be.

Major C turned over the observation to his adjutant at a time when he had no batteries available for action; he gave Captain C orders to fire without reference to him, on any hostile forces that might appear, during the time that Captain C's was the only battery available; by the time all batteries are in position, he is at his own station, thoroughly informed as to the powers and limitations of his batteries in their respective positions, and assumes his duties as director of fire, assigning a direction point, taking into his own hands the assignment of targets and the opening of fire upon them, and assigning such a sector to Battery C as assures the most dangerous flank of the possible hostile position being kept under observation.

3d Requirement:

The march outpost is shown as follows: One company at Schild, with a squad at Small's, at White Hall Schoolhouse, at the farm 600 yards southwest and at the one 800 yards south of Schild.

The support, as it was in march, at the group of buildings one-half mile west of 633.

Battalion and battery commanders and important auxiliary stations indicated by small circles, each battery by a single conventional sign, its width that of a battery to scale (100 yards), positions of limbers and combat trains indicated by circles.

Infantry indicated by rectangles to scale showing column of masses east of the woods at 612.

Notation opposite each fraction, or figures referring to marginal notation.

Comment

1. The command had detrained at Sells Station; it was reasonable to assume it to be in some formation, at

that point—not as marching through that point from the southeast.

2. In a small command, artillery is best placed at the rear.

3. Distances in column may be quite short in an advance to a covered front.

4. On such a short march little or no allowance should be made for elongation.

5. Allowances should be made as follows in an artillery command: Battalion headquarters, two carriage lengths; battery headquarters, distance between battery and battalion headquarters, distance between batteries and between them and attached fractions (as Battery C's combat train), one carriage length.

6. Several students had four batteries in the battalion. Several betrayed a lack of knowledge of the composition of a battalion headquarters.

7. The order of march showed the battalion to be together, except for the firing battery of Battery C, yet many put the combat trains behind the 3d Infantry.

8. Infantry combat trains were held in rear by some. As in the case of the artillery, the statement of the problem showed that the regiments were complete.

9. The time element in the problem was not grasped by some; others, while apparently appreciating it, did *not* appreciate the distances involved.

10. Some positions were too far from the infantry.

11. Some batteries were widely separated, with no compensation.

12. Nothing warranted the assignment of counter and infantry batteries so early in the game.

13. The terrain should be placed under observation *at once*.

14. B. C's. and batteries should be sent for *at once*.

15. In some solutions Major C scattered his scouts, agents, etc., broadcast, without delay, a mistake only too common in practice in all arms. Economy in use of messengers should be practiced.

16. Better prepare for action either just before or just after entering the firing position. Some batteries were prepared miles in rear.

17. Good positions noted were: just south of 612, normal order; in the field north of the woods at 612, normal order.

Positions to the north are best because of shorter ranges and better observation, and greater security from heavy artillery fire from the hostile main position.

Part XI—Troop Leading

The 1st Blue Division, weakened by the detachment of a reënforced brigade under General A, on the early morning of March 26, 1915, took up a defensive position northeast of Gettysburg extending from McElhany to the orchard south of 501, to oppose a Red force invading Blue territory from the west.

General A's command consisted of the 1st Inf. Brig.; 1st Sq., 1st Cav.; 1st Bn., 1st L. A.; Co. A., Engrs. and the 1st Amb. Co. At 5:30 a. m., March 26, 1915, the detachment was breaking camp six miles north of Center Mills when a message from the Division Commander brought information that the Red forces, estimated as a division, at 5:00 a. m., were deploying for attack. General A was ordered to march at once to the aid of the division.

The detachment marched via Center Mills with the 1st Inf.; 1st Sq., 1st Cav., and Co. A, Engrs., in the advance guard. All attempts to reach the division by wire after 6:00 a. m. had failed.

At 9:30 a. m., when General A, at the head of the advance guard reserve, reached hill 646 north of Table Rock, he received information to the effect that the Blue divisional cavalry was engaged with superior Red cavalry near D. Wirt; and that at 9:20 a. m., the Red division had thrown in all its infantry but two regiments, one of which was 700 yards northwest of the 501 crossroads, the other near 504, and that the Blue division had absorbed all its reserves but one battalion. The advance cavalry was at Goodintent School.

Advance party: Co. A, 1st Inf., 60 yards; distance, 400 yards.

Support: 1st Plat. Tr. A, 1st Cav.; Mtd Det. Co. A, Engrs.; 1st Bn. 1st Inf. (less Co. A), 240 yards.; distance, 500 yards.

Reserve: 1st Inf. (less 1st Bn.), 710 yards.; Co. A, Engrs. (less Mtd. Det.), 60 yards; distance, 600 yards.

Main Body, in order of march: 2d Inf. (less 2 bns.) ; 1st Bn., 1st L. A. (less C. Tns.) ; 2d and 3d Bns., 2d Inf.; 3d Inf.; C. Tns., 1st Bn. 1st L. A., 1st Amb. Co.

Total road space Main Body: 3,260 yards.

Trains follow the Main Body without distance.

General A was accompanied by his staff and orderlies, the advance guard commander, the artillery commander and the commander of Company A, Engineers. After receiving the messages, at 9:30 a. m., General A read their contents to these officers. He then consulted his map briefly, and after warning the officers to make notes of his instructions, issued verbal orders directing the detachment to continue the march with a view to attacking the enemy's left, advance guard to take the road to Herman's; the advance cavalry to go to the assistance of the divisional cavalry near D. Wirt, leaving patrols to watch the Red left; the firing batteries to trot up to the tail of the reserve of the advance guard; regimental commanders to join him at the head of the support.

General A, riding at the head of the advance guard support, had reached the ridge crest 700 yards northwest of Herman's at 10:05 a. m., when he received the following message:

Aeroplane No. 7,
TABLE ROCK,
26 Mar., '15, 10-02 A. M.

C. O.,

Blue Brig.:

Red left extended by one Bn. from regt. northwest of 501 cross-roads. One bn. from regt. near 504 now moving toward VARNEY. Red art. posted 1 regt on OAK RIDGE, other with right at STOCK FARM, left near 513 roadfork. Red attacking line now about 500 yds. from Blue position; has made very slow progress in last half hour, but is still advancing. Our cavalry still engaged with Red cavalry; fight is slowly drifting toward southeast.

K,
Lieut., Sig. Corps.

General A, after reading the above message, with his staff, the cavalry platoon and officers who had reported to him for orders, galloped to the fence corner 400 yards southwest of the point where the road crosses the ridge crest. By the aid of field glasses the artillery regiment in action towards the Stock Farm could be plainly seen. A

small mounted patrol near 513 moving rapidly to the south was also observed. It was now 10:10 a. m., the Blue column had continued the march without halting.

At 10:10 a. m., General A read the aviator's message to the assembled officers, cautioned them to make notes of his instructions, and then issued the following verbal orders:

We will attack the Red left. March conditions now cease.

The artillery battalion will move at once to position, in this vicinity, against the Red artillery and their attacking infantry; later supporting our attack. The 1st Battalion, 1st Infantry, is assigned as support.

The 1st Platoon, Troop A, 1st Cavalry, will take position on that hill (pointing to hill 651), to cover our right and to report changes in hostile dispositions.

The 1st Infantry, less 1st Battalion, will advance through HERMAN'S and, when deployed, will attack with its right through J WEAVER.

The 2d Infantry will move, under cover, toward hill 586, north-east of VARNEY, and, when deployed, will attack with its left directed on hill 586.

The 3d Infantry, as reserve under my command, will move forward to the GOODINTENT SCHOOL.

Emptied combat wagons will assemble at TABLE ROCK after troops have cleared the road.

Station for the slightly wounded at TABLE ROCK.

Messages to GOODINTENT SCHOOL.

(Completed at about 10:14 a. m).

1st Requirement:

Action and orders of Major Q, 1st F. A.

AN APPROVED SOLUTION

On seeing the hostile artillery, Major Q at once called out, Agents. They ride up. Have the battery commanders report to me at once. Gallop.

When General A completes his order, Major Q turns to his adjutant:

Captain, A and B Batteries will take position in that hollow in the north end of this field just inside the fence; A on the left, B on the right. Have them trot out, passing by the right of the infantry. C Battery follow them, keeping to the road until closed up on the infantry support. Mark the positions of A and B Batteries and have their firing data ready. They will fire on hostile artillery, A taking the farther half of the line and B the near half.

Corporal K, take this message to the Commanding Officer, 1st Battalion, 1st Infantry, down at that road corner (pointing towards Herman's): "Your battalion is assigned as artillery support. One

battery takes position on the hill southeast of you. Please occupy it at once."

Corporal T (scout), report to the brigade adjutant as agent.

Upon arrival of Captains A and B, about 10:20 a. m., he issues the following order, indicating directions and localities as mentioned:

Our division is in position along the Harrisburg road, about two and a half miles south of here, facing west.

The enemy in superior force is attacking it from the west. Between 3,000 and 4,000 yards to the southwest you can see a long line of his artillery in action.

Our divisional cavalry is engaged with hostile cavalry about two miles east of here. Our advance cavalry was on that hill (Goodintent School) and has moved to the assistance of the divisional cavalry, leaving patrols to the south.

The 1st Battalion, 1st Infantry, now marching down the road yonder, is artillery support and will occupy that hill.

Our infantry marches in a general southerly direction from here, in attack formation, against the hostile left.

Batteries A and B attack the hostile artillery from position in the north end of this field. Battery C goes to that hill (592), to attack the hostile infantry.

Battery A's target is the farther half of the line of guns; Battery B's, the near half. The positions are marked. Occupy them at once and prepare for immediate action. The adjutant will give you firing data. Range by volleys. Report when ready and await my order to commence firing. I will be on the left of A Battery.

Captain C arrives by the time these orders are issued and Major B repeats the information, adding:

A battalion of hostile infantry is probably holding those woods (586).

Hostile reserves are reported from one to two miles south of the hill up which our support is marching (pointing).

You should be able to see them or the hostile attacking lines, perhaps both, from that hill. Take a position over there and fire without further orders on the enemy's reserves or on his main attacking line, whichever in your judgment offers the more important target.

Batteries A and B have reported ready at 10:24 a. m. Major Q signals Commence Firing, and rides back to the left of Battery A.

Captain D, direct the sergeant major to establish wire and flag communication with Battery C. Then join the cavalry to our right front and send me word of the effect of our fire, and of changes in the hostile dispositions.

Lieut. W, (Agent, Combat Train), ride back to the combat train. Tell Lieutenant M what you know of the situation, and tell him to retain his present place in column; when he comes up to those woods (pointing to the northwest), to halt his train, and report to me here in person. Ride at a six-mile gait.

Captain, (Medical Officer), station for the slightly wounded is to be at Table Rock. Send two of your men with C Battery, and establish your aid station at that house. (400 yards N. E.)

2d Requirement:

Action and orders of Captain C to include selection and attack of a target.

AN APPROVED SOLUTION

Captain C joins his battery on the road, assembles his officers at its head, and explains the situation as they ride along, adding, to the Executive Officer, Follow the infantry support, keeping a sharp lookout for signals from me. I am going ahead to reconnoiter.

He gallops off accompanied by the reconnaissance officer and his party. On arrival at the top of hill 592, he sees, to the south, a small part of the 501—McElheny road (about where the 520 contour crosses). Beyond that point the road is hidden by the trees on the west slope of hill 552. The house and orchard southwest of 501 are visible over these trees. The house near 543 is visible, as are parts of the battlefield from about 400 yards beyond it. The reported positions of hostile reserves are not visible, being hidden by the trees on the line, hills 586—552. Captain C has, then, no option but to fire on that part of the battlefield. This fire should be very effective,—enfilading and at from 3,500 to 5,000 yards. Besides, it will have the effect of drawing the attention of the hostile reserves, perhaps of keeping them out of the main fight. The Red artillery is hidden from view by a heavy wood about a mile southwest of his position.

Captain C decides to go into position just west of Goodintent School, with observation station on hill 592, and fire first on the hostile main line. He considers that he should waste no time in looking for a safer position. By having the battery cross the ridge near the orchard, about 400 yards north of its firing position, the latter will not be betrayed to possible hostile artillery to the southwest, and it is not probable that any hostile artillery is east of the ridge 592—586.

Though in an open position he will use indirect fire, at least to begin with, because of its ease of control, distribution, etc.

Corporal L, gallop back to the battery. Tell the Executive Officer to lead the battery over that crest (pointing north) to the orchard, then south into position near the schoolhouse (pointing). Position will be marked. Battery to come in at a trot. Limbers return to orchard.

Corporal P, you and K mark the line of the battery, direction of fire towards that woods (pointing to south).

Lieut. R. O., place the woods in our front under observation and see if you can, from the schoolhouse or nearby, get a view down the valley through that gap in the trees. (Between the woods on the east slope of hill 586 and those on the stream line).

Captain C selects an aiming point to the front, measures the deflection for the right piece, calculates the deflection difference, measures the angle of site, and estimates the range and corrector.

The battery being in position, he opens fire by volley on the hostile attacking line.

3d Requirement:

Conduct of the infantry support, and its final dispositions, assuming no interference by an enemy until they are completed. No orders.

AN APPROVED SOLUTION

The support continues the march, bearing off to the left; the leading company being detached towards the Weaver house, there to establish a march outpost. The remainder closes in mass in the woods north of Goodintent Schoolhouse, sending one squad to the roadfork due north of 592, another to roadfork 548, and another to the farmhouse 400 yards southeast of the schoolhouse, as outguards.

The company sent to the Weaver house sends a squad to the stream bottom on each flank and a platoon under a lieutenant to the edge of the woods about 600 yards south, with orders to explore those woods, and provide for security from that direction. The remainder of the company prepares a defensive position, extending from the Weaver house west over the ridge to the farmhouse on the west slope.

The support commander joins the battery commander and the two make known to each other their plans, and arrangements to meet them, as far as is necessary to ensure mutual understanding.

Comment

The problem is one calling for quick action. The regiment of Red artillery near the Stock Farm is in a most vulnerable position. Two batteries opening a flank fire upon it will inflict very great loss on the personnel and matériel, and prevent the limbers coming up to take it to safety. Only one or two of its guns could probably be turned to fire to the north, and their personnel would be exposed to the Blue artillery fire from the east. Although not the most threatening element of the Red attack, the neutralizing or destruction of this Red artillery will be more valuable to the Blues than the participation of Major Q's battalion in the attack of the detachment against the left of the Red infantry.

Moreover, it is not at all certain that the Red infantry can be seen or fired upon from hill 592, and advance south from there will not be advisable until the Blue infantry has advanced well beyond it, at least assuring that the woods (hills 586 and 552) are not held by the enemy. The movement of the hostile battalion from 504 towards Varney, indicates that the Reds are becoming alarmed for the safety of their left flank, and are either sending a support for their artillery or occupying the woods on 586. In either case, the Blues cannot expect to approach those woods unobserved and unmolested. They are too near the scene of action to be left unpatrolled.

Students generally, recognize the value of time in a problem, but forget it in the solution, and waste much valuable time in galloping about the country, looking for ideal positions. It is a case where the opportunity to damage the enemy justifies even an open position. But there were a few who went about the selection of the position, with all the deliberation characteristic of the selection of the one for permanent occupancy. Others did not appreciate

the scale of the map, and had Major Q gallop many miles in a remarkably short time.

Many good positions were selected for the artillery, whose occupation would have taken so much time that the chance of taking the hostile artillery at a disadvantage, would undoubtedly have passed.

Many positions selected were excellent for the guns, but had no suitable positions for B. C. stations within a reasonable distance. This is a serious error. The two absolute requirements of a battery position are (1) that the battery commander see his target; and (2) that the fire of his guns be able to reach it.

Several students were led into very serious errors by their failure to read, understandingly, the original problem and the partial solutions issued to them. Several students indulged in the use of a number of technical terms which they did not understand, and which were not essential to their solutions. Others seemed to feel that they had to assign some task to every member of their personnel, whether there was any need or not.

There was a noticeable lack of care in determining the position of units on the road at the time General A's order was completed. There is no excuse for this. Their location should have been the student's first business.

In the 2d Requirement, several students showed much apprehension about continuing the march down the road past Herman's, and sought devious ways through the fields to the north, in an effort to avoid being seen. The road is two and a half miles from the nearest hostile artillery, which is extremely busy in another direction; and even if seen, a single battery could traverse the distance practically in safety. Much time is lost by a detour, and just now time is more important than safety.

Positions selected for Battery C were generally good. Yet the Reds can not possibly have any artillery east of the line 592—586; therefore, a position in the open east of that line is permissible. A few took positions north of the woods by the S. H., necessitating a long line of communication to the B. C. station, increasing greatly the dead

space in front of the guns, and, in general, reducing the efficiency of the battery very materially.

The conduct of the support varied from excellent to very poor. A support should be handled as an outpost, the artillery being the object to be guarded. In this case, there was danger to be apprehended from the southwest (hill 586), probably in possession of the enemy (see problem), and from the north and northeast where the Red cavalry is known to be. The artillery battalion commander may need the services of part or all of the support later on.

Some students spoke of keeping hostile rifle fire at least 1200 yards away from the battery, and for this reason sent a line of outguards out to that distance. If that is to be the line of resistance, it is so extensive that it could not be held by the whole battalion. Others have established observation posts as far as a mile distant. The lay of the land permits of observation posts, reasonably near the reserve, which can see the country perfectly for at least a mile. This indicates the line of observation and the line of resistance as the same.

Some examples of faulty handling of the support were: Deploying it all in a semi-circle with Battery C as a center; having it intrench right and left of the line of guns; having it intrench 300 yards in rear of the line of guns; leaving one platoon as a local support for Battery C, and taking up a position with the rest of the battalion, a mile east of the battery.

The artillery commander does not issue orders to the infantry commander. (See par. 583 I. D. R.)

Part XII—A Battalion in Action

General Situation:

An invading Red army, based on Baltimore, has covering detachments on the line, Havre de Grace—Parkton—Westminster—Mt. Airy.

A Blue army is concentrating in the area Carlisle—Harrisburg—York—Gettysburg.

Special Situation:

On the morning of October 28, a Blue force, engaged in covering the Northern Central railroad at Littlestown, marched to the support of a similar Blue force east of Taneytown, now menaced by superior Red forces advancing from the direction of Westminster.

At 9:00 a. m. the situation was as follows:

The cavalry, (2d Sq., 2d Cav.,) which had gone direct from Silver Run, leaving one-half of Troop G to continue reconnaissance toward Westminster, was about a mile south of Big Pipe Creek Mill, stopped by hostile cavalry on the hills to south and east. One-half of Troop G was near roadfork 516, stopped by hostile cavalry on hill 584.

The 10th Infantry, as a flank guard, had marched by the road southeast of the railroad, and its advance party was at roadfork 626, on the Piney Creek—Mayberry road.

The 4th Infantry Brigade, (less 10th Inf.), the 2d Bn., 3d L. A., and the 5th Amb. Co., marched by Galt. Its advance party was at roadfork 545.

A ten minute rest was ordered. Cannonading had been heard for some time toward the south. Information had been received that there was no hostile movement north from Westminster.

A message had just arrived, reading as follows:

Det. 1st Div.,
TANEYTOWN—WESTMINSTER road,
1 mile east of TANEYTOWN.
25 Oct. 15, 8-30 A. M.

C. G. Det., 2d Div.:

Enemy estimated at strength of a division. Advancing from TYRONE and UNIONTOWN. He has begun deployment in the valley

of BEAR CREEK, the woods east of TREVANION, and the heights south of that place. His artillery has fired from a number of points, mostly in the direction of FAIRVIEW SCHOOL, WEISHAAR'S MILL, and TYRONE. A few shots came from the direction of MAYBERRY.

I am preparing to meet an attack on the line OREGON SCHOOL—STUMPTOWN.

C,
Brig. Gen.

General A, with his staff, Colonel C, 11th Infantry, and artillery commander, Major K, was riding in rear of the support. After reading this message he galloped on past the support and advance party to the house at 571. Here the party dismounted, maps were oriented, locations determined, General C's message read aloud, and General A gave the following instructions.

I intend to attack the hostile right flank in the direction of that hill (584).

The left flank guard will follow that road on the other side of that valley (576—490).

The main column will go across country to the second road south of here, keeping out of sight from the country east of Big Pipe Creek, —and then turn east.

The artillery will at once take position, prepared to support the Det., 1st Div., and later our attack.

I ride with the support for the present.

Required:

1. Actions and orders of Major K, 3d L. A.

2. Tracing showing:

(a) The detachment at 9:00 a. m.

(b) The artillery at (time), when its occupation of position is complete, and the flank and advance guards.

AN APPROVED SOLUTION

Upon receipt of his orders, Major K called out, Agents. They rode up.

Corporal X, report to the Brigade Adjutant.

Corporal Y, take one scout with you and ride to the battalion at a gallop. You will follow the road running west from where the advance party rested, to the main road west of the railroad track; there turn to your right. Leave the scout there as marker, if the road is passable for the battalion; if it is not, take him with you.

The battalion is to come up at a trot, by the way you are going, if passable; otherwise, by the way we marched. Remain with it.

Battery commanders and their reconnaissance parties come up at the gallop by the road we marched over.

No orders for combat trains.

Major K had the agent repeat the message and mark the route on his map.

At 9:10 a. m., the man started, as did the column. At road corner 481 he told the scout to fall out, and continued on, meeting the battalion at Washington S. H. at 9:23 a. m. He delivered his message to Captain D, who was leading the battalion, and reported the road good. Captain D signalled trot, and told his executive officer to follow the agent, while he turned out on the road to Galt with his reconnaissance party, and sent a scout back along the road to warn the battery commanders to fall out with their reconnaissance parties and join him. At 9:26 a. m., all had joined, and the party set off at a gallop via Galt.

Major K selected this road for the advance of the battalion, because it was about the same distance as the one the column was marching over, was surely safe, was probably quite as good, and led to a point, roadfork 509—squarely in rear of the covering crest that would determine the position of the artillery, and from which two roads led to that crest. Time would be saved by not having to pass three or more detachments of infantry in a narrow road, and the infantry itself would not be delayed.

From where he was, Major K could see nothing of the country east of a line through the summit of hill 584, and he could see little of the valley west of that hill. A position further south must be sought. The proposed lines of march of the columns, on Bashere Mill and the road leading down to Zimmerman Mill, indicated the general location and direction of their deployments. The crest, a mile east, was too far away to be considered, since time was important. A position further to the south would not only be well located with reference to the line Zimmerman Mill—Bashere Mill, but, also, to the line Stumptown—Oregon School; and coöperation with the artillery of the other Blue force would be easier.

Corporal M (scout), you and N ride along this crest to the southwest and open each fence you come to, just below the crest on the west side.

Major K rode along the crest to the southwest studying the country as he went. His Adjutant, Captain L, rode

with him. The rest of the party kept abreast, but on the west slope, and out of sight from enemy territory. At the south end of the woods on hill 587, he stopped for a more careful observation. From here he had an unobstructed view of the crest of the hills, 584 and 567, to the road over the east end of the latter, their western slopes down to about the 480 contour, the line of the Stumptown—Oregon School road, of Stumptown, and parts of the valley east of that line.

A better view might not be had, so far as he could judge from map and the terrain, and he decided at least to establish observation here. The long slopes to the west would afford ample room for the batteries; and any desired degree of defilade could be had. Guns at the fence on the west side of the field west of 576, for instance, would have flash defilade against hill 584 in the hostile territory, would be at least 400 yards from the covering crest, and yet could clear the trees south of them at 2,000 yards range—2,400 yards, allowing for the slope of the valley.

The hostile artillery was apparently, for the most part, far to the southeast; but part of it would be certain to move to the support of that known to be in the vicinity of Mayberry. It could readily occupy, unobserved, positions behind the line 584—567.

Captain L, remain here with three of the scouts, and take the sector from Stumptown to that road (east end of hill 567), under observation. The rest of the party come with me. I shall reconnoiter further.

9:20 a. m. He then continued along the crest, comparing the changing view with what it was from where he left his adjutant. He noted that the view opened out to the east, but closed from the west. Finally, he went through the woods to hill 583. Here he found the view to the east limited to the country south of a line through the saddle 584—567, by the woods east of 563. South of that line, he had a fine view of the valley to a line through the northeast edge of the woods at Stumptown.

This locality offered no advantage not possessed by the other, while it had some disadvantages, such as a lessened view of the valley in front of the Blue position. It was

a bare, flat hill top, difficult for observers to use without attracting unwelcome hostile attention. The trees at the first place, too, might afford observation points 30 or 40 feet above the ground, which would greatly extend the area otherwise visible.

9:30 a. m. Major K to the two scouts with him:

Remain here and keep those heights (pointing southeast) under observation. Should you notice anything of importance, one of you will come and report to me; the other remaining in observation.

The woods to the southwest could be seen to extend to the neighborhood of the Taneytown—Stumptown road. A position in those woods was to be avoided, while one to the south of them would greatly delay the entry of the artillery into action, would sacrifice the advantage of oblique fire in front of the Blue position, and would be rather too far from the line of advance of the 4th Brigade.

Information as to the dispositions of the detachment of the 1st Division would be necessary, if coöperation with it was to be had.

To Lieutenant C, agent combat train:

Headquarters of the detachment of the 1st Division should be on or near this ridge, about a mile or so further on (pointing). Go there with your men and report to General C as information officer. I want early information as to his dispositions, and those of the enemy.

I will call up another agent to take your place here.

Our position will be west of the saddle between hills 584 and 587.

Major K rode rapidly back to 576, arriving there about 9:35 a. m., as the Battery Commanders, with their reconnaissance parties, rode up to report.

To Corporal Z (agent):

Gallop down the road (pointing toward roadfork 509); meet the battalion and conduct it up this road.

To the Battery Commanders:

Battery D will go into position in the field just this side of that house (pointing to house surrounded by trees about 500 yards N. W.), face about 20 degrees east of south, right at the south fence.

Battery E, on the left of D, left on the road.

Battery F, north of the road, 100 yards from it and in line with the others.

All B. C. stations will be in the woods (pointing) near mine.

Reconnaissance officers mark out the battery positions and see that they are occupied at once. Battery Commanders come with me.

Major K then rode to the rear of the woods, where all dismounted and walked to the position of the adjutant. The latter reported that no enemy had been seen, but that shrapnel had begun to burst along the Oregon S. H.—Stumptown line, which might mean an early infantry attack.

The Major rapidly oriented the B. C.'s on the terrain, issuing his orders at the same time.

The enemy is reported as a division in strength. He has been deploying, for about an hour, to the south of that hill (pointing to 584), so that his infantry attack may be expected to develop at any time.

The detachment of the 1st Division is prepared to meet the attack on the line Oregon School-Stumptown—you see buildings on that line (pointing to them).

Our flank guard is on that road just east of us. Our advance guard turns east on a road just south of those woods (pointing southwest).

Our cavalry was last reported on the north slope of those hills (584—567), stopped by superior hostile cavalry who hold those hills.

Sectors of observation:

Battery E; Stumptown, half way to the summit of that hill (584).

Battery F; from there to the house on the east slope of that hill (584).

Battery D; to include the three roads crossing those hills (584—567).

Battery D will establish an auxiliary observation station near the southeast corner of those woods (pointing to the southwest to hill 584).

Batteries will be prepared to fire into each other's sectors.

Combat trains in the grass field west of the batteries and near the railroad.

Targets will be reported, but no fire opened without my order.

Report to me when ready.

The 10th and 11th Infantry, now the flank and advance guards, would soon be deploying, and information as to their dispositions and progress would be necessary; the view of the terrain in front of the Blue line was not all that could be desired, if effective fire was to be opened upon it; the chances were good that some one of the spurs on the west side of Big Pipe Creek would afford a good view of it; the battalion reel was not needed, since the battery commanders were close to the battalion commander, and each had his own lines to his battery.

Major K, therefore, issued the following additional orders:

To Corporal Z, (agent):

Meet the combat train and conduct it to its position via the road the battalion followed. Tell the commander to send me a non-commissioned officer as agent, in place of Lieut. C who is on other duty.

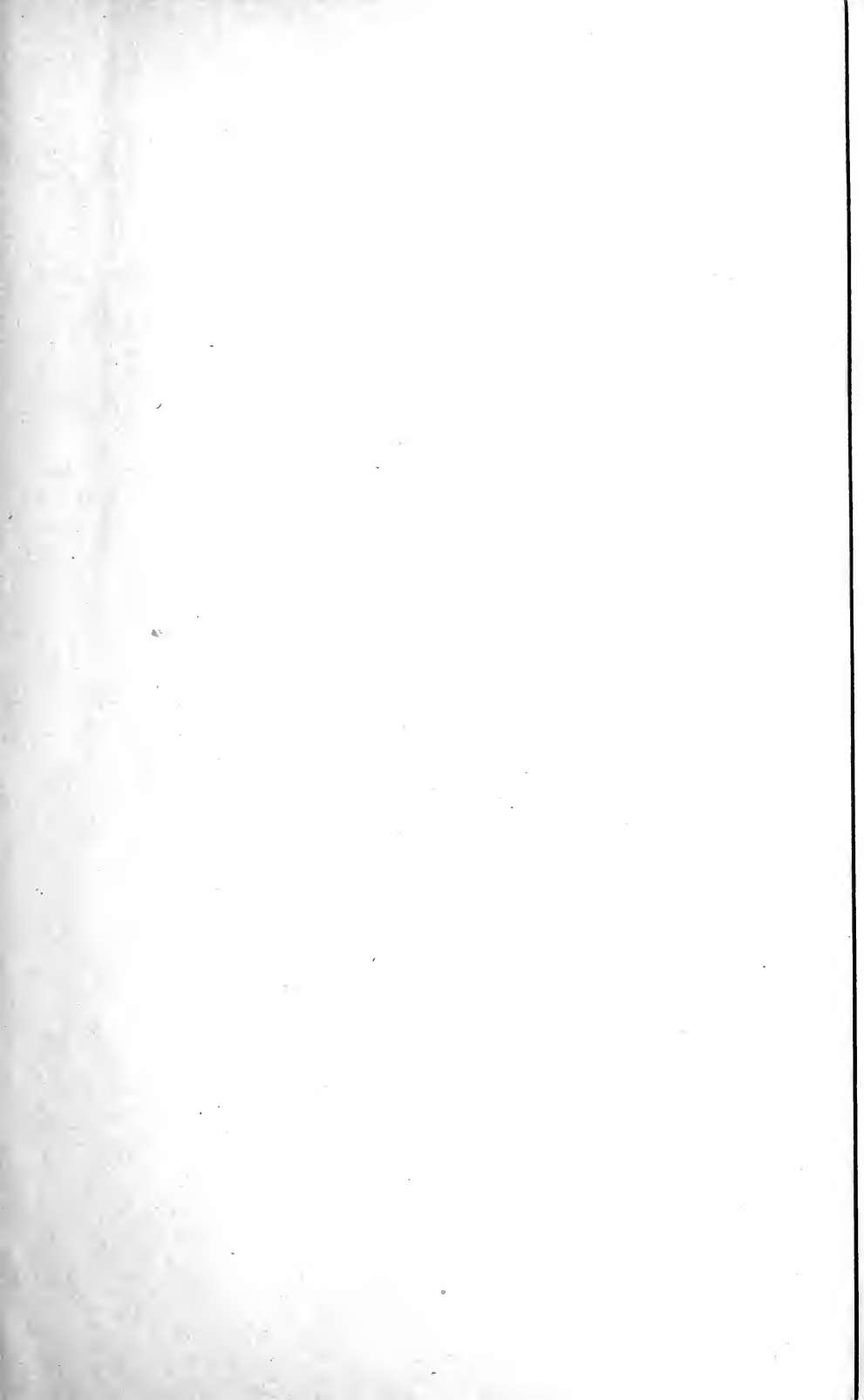
To the Adjutant:

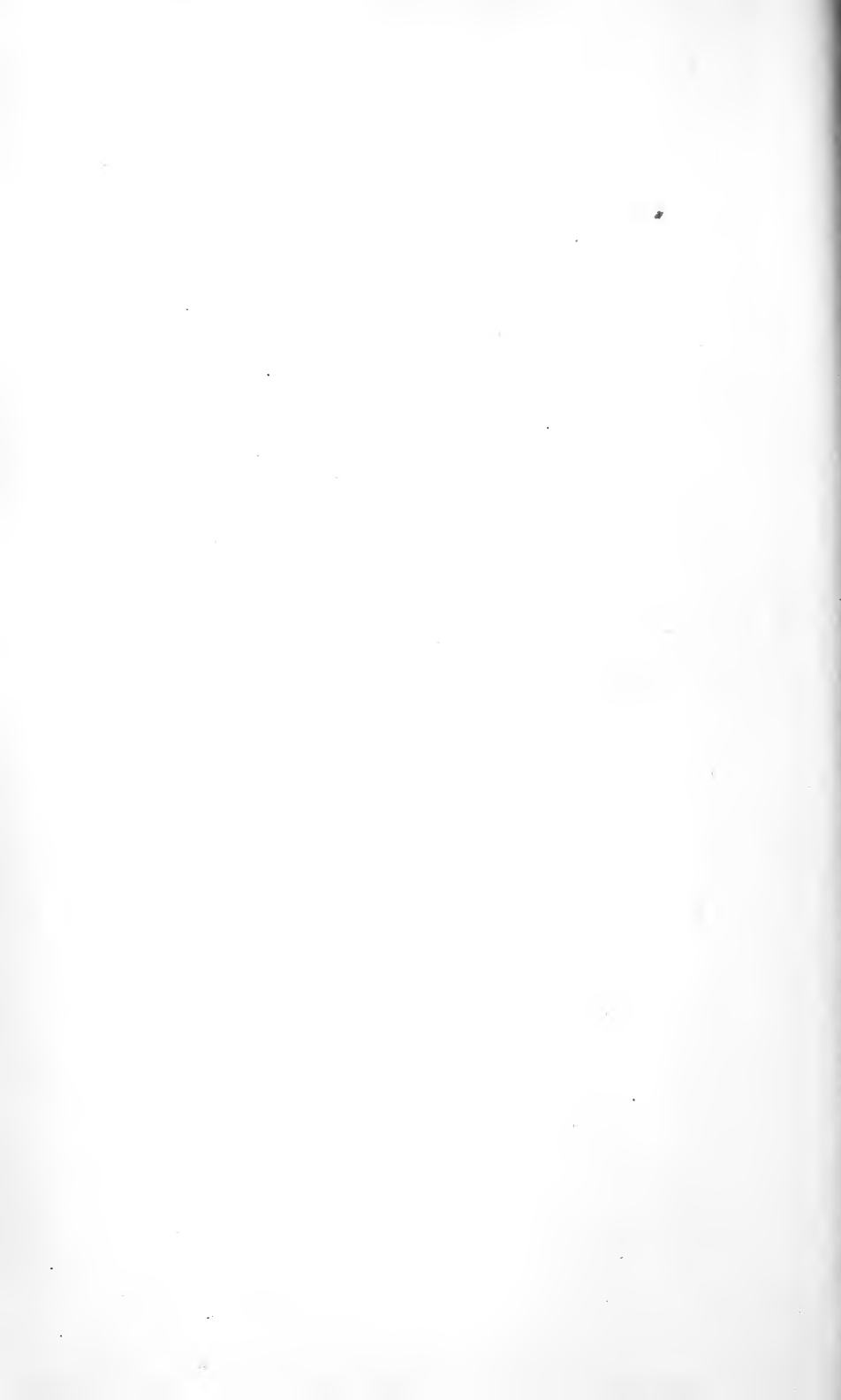
Captain L, you will lay a wire from here, passing in rear of the batteries, and following the line of advance of the advance guard, to some point in the valley where a station can be established for relaying messages. After that, you will establish observation of the terrain in front of Gen. C's line. Take four battalion scouts.

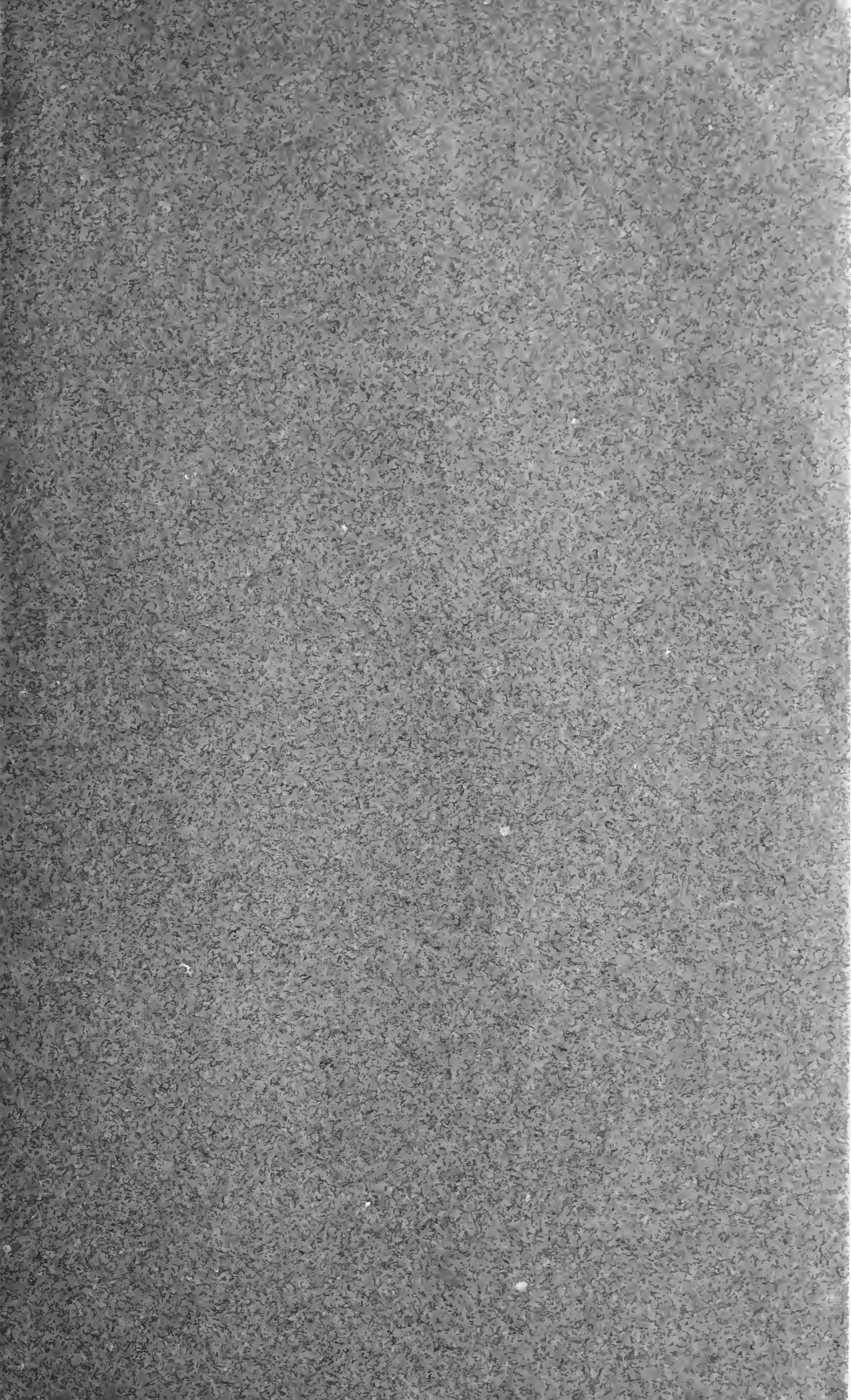
Take the reconnaissance officers of E and F Batteries with you, each with two scouts. Explain the situation to them as you go along, and attach them to the advance and flank guards as information officers.

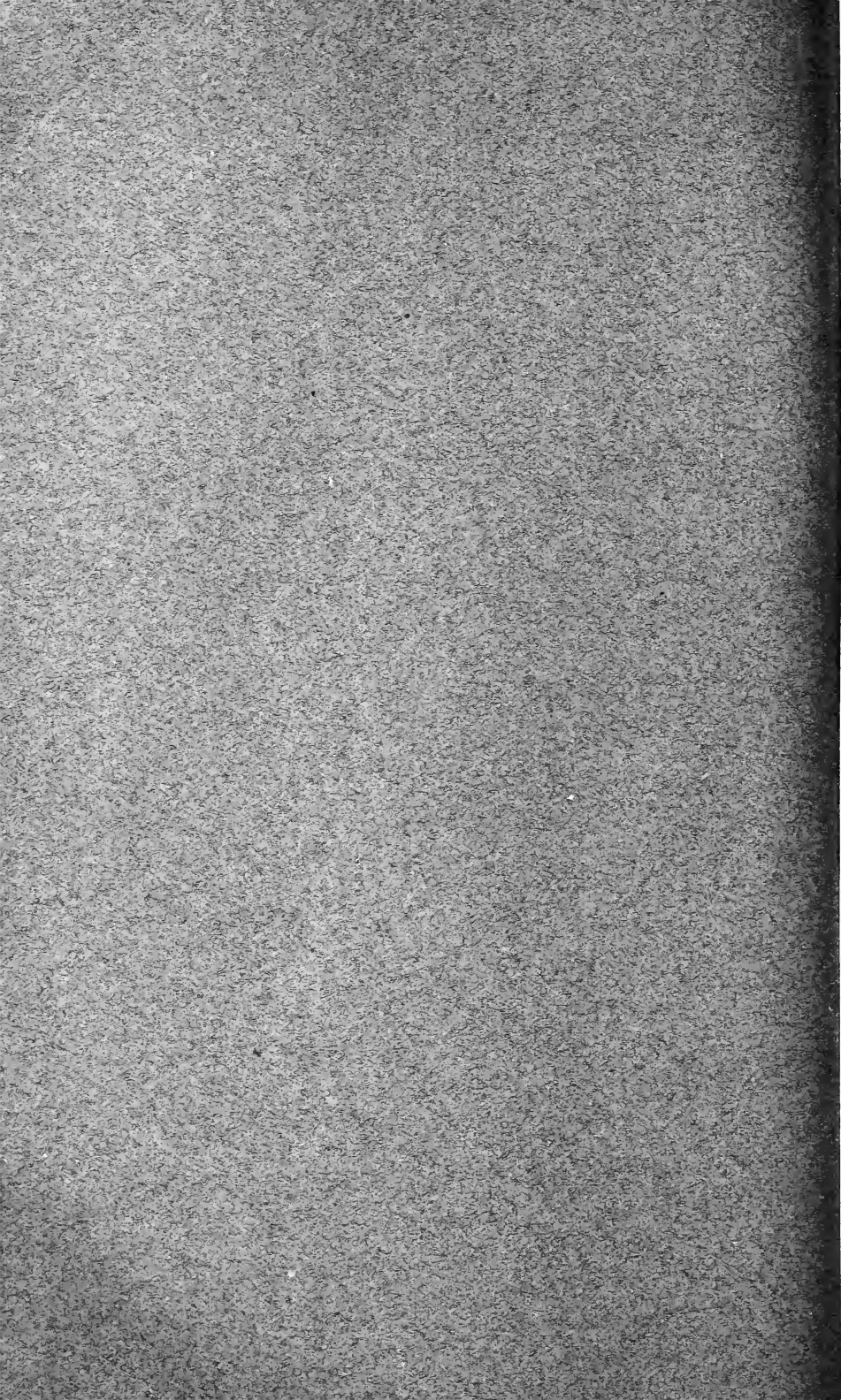
At 9:45 a. m., the occupation of the position was complete, except for the establishment of the auxiliary and signal stations by Captain L. The Combat Train was nearing Washington Schoolhouse.

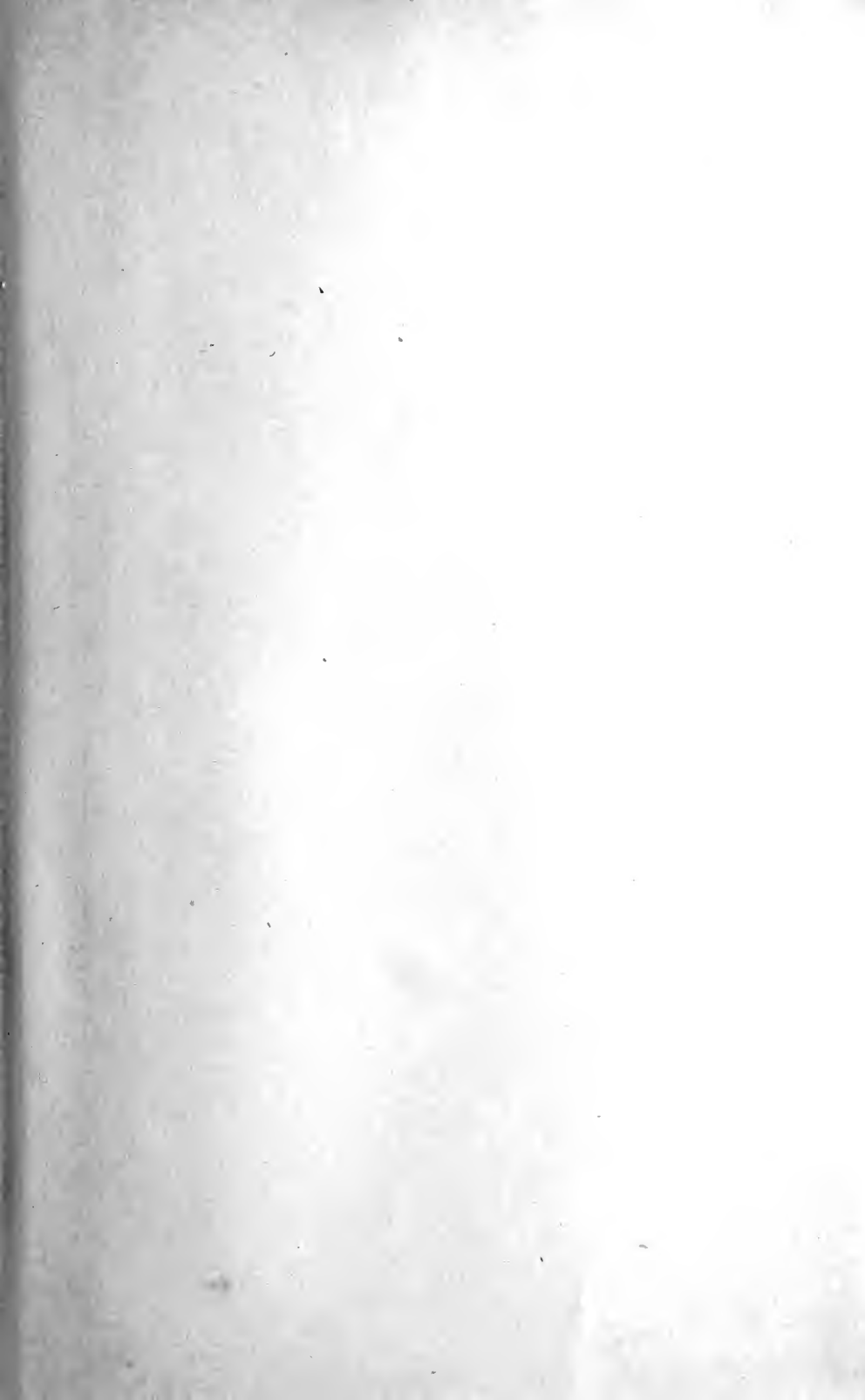
Major K so reported to General A.

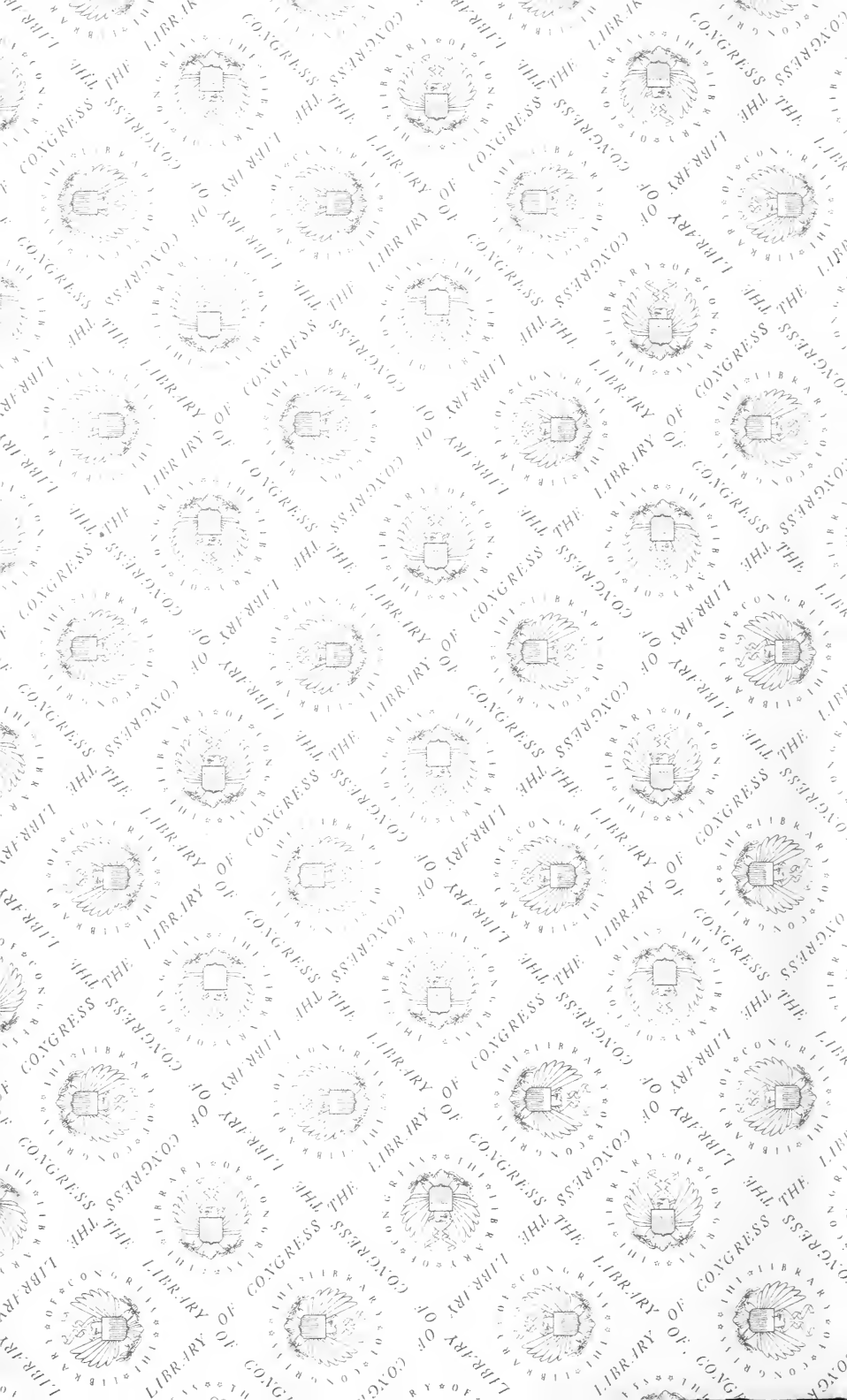












NAME Co. REGT.

INSTRUCTION PRACTICE

200 yds., Slow Fire (5 sitting, 5 kneeling)	TOTAL
300 yds., Slow Fire (5 Prone)	
500 yds., Slow Fire (Prone)	
200 yds., Slow Fire, Target D. (Kneeling)	
300 yds., Slow Fire, Target D. (Prone)	
200 yds., Rapid Fire, (Kneel from stand. 1 min.)	
300 yds., Rapid Fire, Prone from stand. 1 min.)	
AGGREGATE	

QUALIFICATION { 1st CL. 150 }
 { 2nd CL. 130 }
 { UNQ. 130 }

Note: ONLY THOSE QUALIFYING AS FIRST-CLASSMEN ARE ADVANCED TO RECORD PRACTICE.

This is a detailed black and white topographic map of a region in Iowa. The map features a dense network of contour lines indicating elevation, with numerous peaks and valleys. A complex road network is shown throughout the area. Several place names are labeled, including Emmetsburg in the lower-left, Huxley in the lower-center, and various smaller towns and villages such as Mount Pleasant, Keosauqua, and Keosauqua. The map also shows a river system, with a prominent river flowing through the lower-right portion. The overall terrain appears rugged and hilly.

Scale in miles

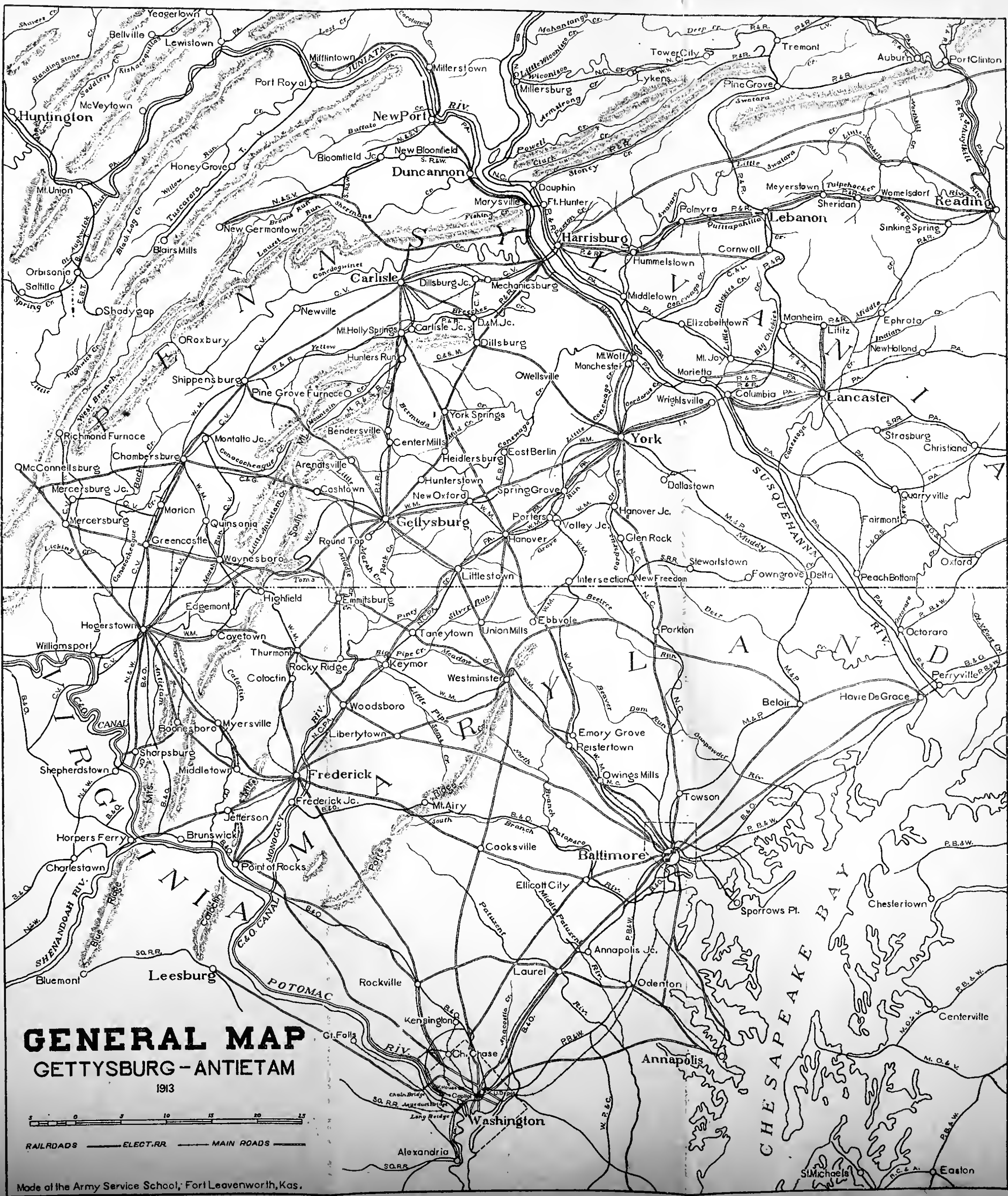
0 1 2 3 4

0 1000 2000 3000 4000 5000 6000 7000 8000

MD

VL20m

Datum is mean sea level 1913



GENERAL MAP GETTYSBURG-ANTIETAM

1913

RAILROADS — ELECT. RR — MAIN ROADS

Made at the Army Service School, Fort Leavenworth, Kas.

LIBRARY OF CONGRESS



0 029 785 944 4